

SEPTEMBER–OCTOBER 2017

ARMY SUSTAINMENT

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Force Reception and Onward Movement

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ON THE COVER



A crane lifts a heavy expanded-mobility tactical truck onto a flatbed during port operations at Busan, South Korea, on July 13, 2017. This marked the first time the 35th Air Defense Artillery Brigade received air defense missile equipment by sea in order to integrate it into the air defense architecture on the Korean Peninsula. (Photo by Capt. Jonathon Daniell)

“Force projection and force reception are at the heart of Army readiness. This fact is guiding and directing CASCOM efforts to develop doctrine, organizations, and concepts that support the warfighter.”

Maj. Gen. Paul C. Hurley Jr., p. 5

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The Final Strategic Objectives

■ By Gen. Gustave “Gus” Perna



Two years ago in *Army Sustainment* magazine, I wrote about changes to our operational environment and the necessity of preparing to set a theater for a regionally aligned, rapidly deployable force. I stated that we logisticians must prepare to support an Army that is smaller but more responsive.

While we have made progress, we must continue to prepare our sustainment formations at all echelons to set the theater and establish favorable conditions for conducting military operations. In the articles in this issue, some of the Army's best logisticians and subject matter experts explore how we accomplish this mission.

In the previous two editions, I introduced four of six strategic objectives that establish the organizational strategy to operationalize the Army Materiel Command as the Army's materiel integrator: materiel readiness, sustainable readiness, force projection, and battlefield sustainment. In this edition, I highlight the final two objectives: Armywide sustainment and materiel development.

Armywide Sustainment

Armywide sustainment begins with maturing our processes and operations

to best meet Army materiel readiness requirements. To synchronize and integrate sustainment capabilities, we must become experts. We must shape Army doctrine through the Training and Doctrine Command in order to optimize sustainment across the strategic, operational, and tactical levels.

Sustainment doctrine must consider our current and future complex and dynamic operational environment to address challenges such as the implications of operating as part of a dispersed, joint, interorganizational, and multinational team and sustaining a high operating tempo while still developing agile, resilient leaders.

Through the codification of lessons learned, best practices, and emerging concepts, sustainment leaders and forces are best positioned to implement current and future sustainment doctrine and are trained to standard to execute the sustainment mission.

We further shape the fight by establishing effective mission command across the entire enterprise and ensuring sustainment unit readiness by manning, training, and equipping. As logisticians, we need to look past our task organizations and focus on all the critical relationships required to fight and win. Through the lenses of mission command, command authority, and command influence, logistics leaders can leverage all sustainment capabilities to support mission success.

Materiel Development

Materiel development begins with leveraging science, technology, research, and development to maintain a competitive edge. With our partners in the Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology), the Training and Doctrine Command, Forces Command, academia, and industry, we will synchronize and align our sci-

ence and technology investments with the Army's top challenges to deliver capabilities that our Soldiers require.

The key here is pursuing innovative technologies that match current and emerging battlefield requirements. We must define the problem then innovate and ultimately transition the technology to the materiel developer.

Materiel development has been stifled by a burdensome acquisition process that inadequately and too slowly provides the sustainable materiel solutions that are required. We must shape an acquisition life cycle process that is structured to produce timely, affordable, and sustainable materiel, including rapidly fielded new technologies.

Sustainment costs add up over a piece of equipment's life cycle. Early in the acquisition process, we must factor in costs and address sustainment in all materiel requirements documents.

Our nation depends on an Army that is ready to respond to any call, to deploy at a moment's notice, and to operate anywhere in the world. Logistics has always been our military's strategic advantage; to maintain that advantage in today's complex world, we must be ready instead of reactive.

If we in the materiel enterprise focus on the six strategic objectives of Armywide sustainment, materiel development, materiel readiness, sustainable readiness, force projection, and battlefield sustainment, we will posture ourselves and, in turn, our Army for success on the battlefield. If we commit to clearly defining requirements, ignoring who gets credit, and aligning our efforts to our outputs, we will collectively provide Army materiel readiness.

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

When Time Is Not on Our Side

■ By Lt. Gen. Aundre F. Piggee

The most precious asset the Army has when preparing to go to war is the one thing we all wish we had more of in our lives: time.

Time available to conduct the myriad tasks required to properly set the theater will be even more scarce in future contingencies. Our adversaries observed how we prepared for Operation Desert Storm, Operation Iraqi Freedom, and other recent operations, and they are unlikely to allow us months of uncontested access to build combat power in a neighboring country again.

Today, as the multidomain battlespace continues to evolve, the task of setting the theater has expanded. It is now really a matter of setting the entire globe, as chairman of the Joint Chiefs of Staff, Gen. Joseph Dunford, explains it. Exactly where on the globe that next conflict will be, no one knows.

Efforts to Save Time

During my career, the Army was called to serve in Grenada, Panama, Somalia, the Balkans, Haiti, Kuwait, and other places where no one thought we would go just six months before we landed. So here at the Pentagon, we are working to ensure we have the correct commodities in place to build combat power when time is not on our side.

Do we have sufficient fuel? Are there enough munitions? Do we have the right maintenance and required medical capabilities? Have we established robust distribution capabilities? Do we have the right units and force structure in place?

We ask these questions every day. Unless all of these factors are in place well before the start of a contingency operation, we cannot count on being able to deliver supplies and equipment while our enemies employ anti-access/area-denial capabilities.

We have taken a number of steps to speed up our delivery processes. We have increased Army pre-positioned stocks, which are integral to equipping forward combat forces quickly. We are now assembling the stocks into ready-to-fight configurations to save time.

We are implementing a \$100 million program to ensure all units have a common authorized stockage list that is 100 percent mobile and will provide 30 days of repair parts in a combat environment. In addition, the Defense Logistics Agency will stock 45 days of supply at their forward storage locations.

We are growing our ammunition supplies. We have enough for what we need today, and we are working to ensure we have enough to conduct two contingency operations almost simultaneously.

Many key sustainment capabilities are required early on in the opening phases of setting the theater. We have identified key enabler units that are required in an expeditionary fight to enable successful reception, staging, onward movement, and integration, and we are working with our reserve component to ensure that it is ready to deploy first.

Reserve component units must sustain a high level of readiness and make sure their personnel are trained and have the right equipment to execute tasks to standard on short notice. Since 78 percent of Army logistics capability resides in the National Guard and Army Reserve, readiness is critical.

This year the Army is also finishing the fielding of Global Combat Support System–Army for ground systems. This will give commanders the situational awareness to make better decisions.

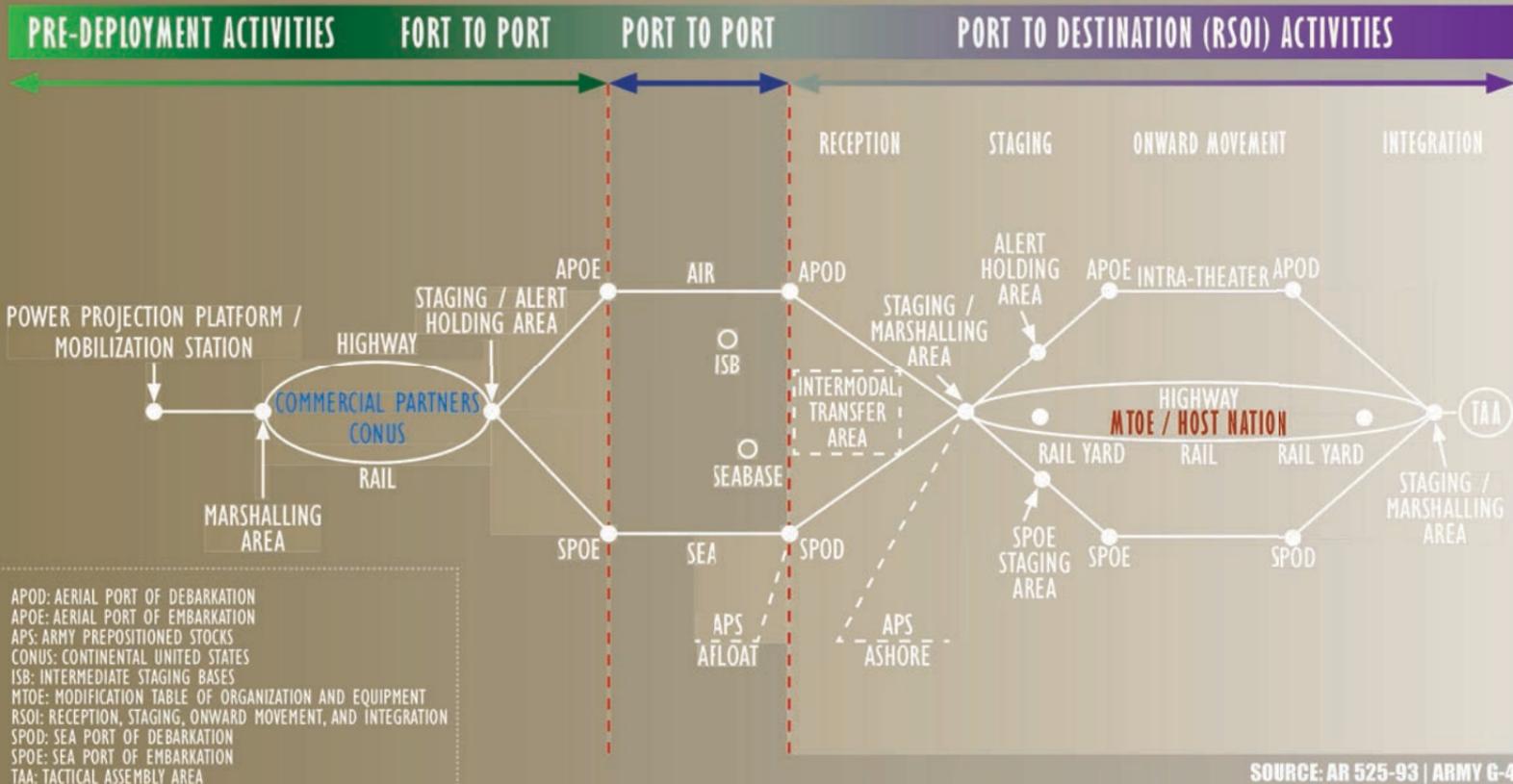
Training to Save Time

There are also things you can do in your units to prepare. Tasks associated



The Army must consider how to save time in order to allow units to deploy faster.





**MISSION COMMAND**

COMMUNICATIONS — ENSURE SUFFICIENT SECURE COMMUNICATIONS ARE IN PLACE AT EACH NODE IN THE DEPLOYMENT PROCESS (SP0D, AP0D, RAILHEADS, ETC) TO ENABLE MISSION COMMAND AND REPORTING THROUGHOUT THE RSOI PROCESS.

PLANNING — CLEARLY DEFINE EACH STEP OF RSOI. BE EXPLICIT IN WHAT DEFINES WHEN RECEPTION, STAGING, ONWARD MOVEMENT AND INTEGRATION BEGIN AND END. THIS WILL ENSURE SHARED UNDERSTANDING AND ASSIST THE DEPLOYING UNIT IN IDENTIFYING WHERE THEY NEED TO FOCUS THEIR PLANNING AND PREPARATION EFFORTS.

UNITY OF EFFORT AND UNITY OF COMMAND — ENSURE THERE IS A SINGLE COMMAND IN CHARGE, ONE HEADQUARTERS RECEIVING AND PREPARING STATUS REPORTS THAT ARE DISSEMINATED TO EVERYONE INVOLVED IN THE OPERATION.

MOVEMENT AND MANUEVER

OPERATIONAL FOCUS — ENSURE DEPLOYMENTS AND REDEPLOYMENTS ARE TREATED AS OPERATIONS AND THAT THE ENTIRE UNIT REMAINS FOCUSED ON THE MISSION.

PRIORITIZATION AND FORCE FLOW — EVERY MANUEVER ELEMENT THAT REACHES ITS INTEGRATION LOCATION MUST HAVE SUSTAINMENT ASSETS ON GROUND OR ARRIVING IMMEDIATELY FOLLOWING, TO SUPPORT THEM.

HOST NATION INTERFACE — PROVIDE OPERATOR TRAINING FOR CONTRACTED STEVEDORES AT BOTH SPOE AND SP0D TO MINIMIZE DAMAGE TO EQUIPMENT BY UNTRAINED OPERATORS.

SUSTAINMENT

DISTRIBUTION — ENSURE INTERIM DISTRIBUTION SYSTEM/SUPPORT NETWORK IS ESTABLISHED WHILE BUILDING COMBAT POWER DURING RSOI, UNTIL ASSIGNED BSB CAN RECEIVE INTERNAL EQUIPMENT AND BEGIN EXECUTING.

REQUIREMENTS — ENSURE CUSTOMS CLEARANCE OFFICERS; FIELD ORDERING OFFICER (FOO) AND PAY AGENT (PA) PAPERWORK AND TRAINING; THE INSTALLATION SUPPORT MODULE-CENTRAL ISSUE FACILITY (ISM-CIF); GOVERNMENT PURCHASE CARD (GPC); ETC. ARE CLEARLY DEFINED, CODIFIED IN SOPs, PUBLISHED TO INCOMING UNITS, AND ENFORCED TO THE SAME STANDARD ACROSS THE THEATER.

TRANSPORTATION FACTORS — DIMENSIONAL DATA ARE CRITICAL. UNDERSTAND COMMON RESTRICTIONS WITHIN THE THEATER: FOR EQUIPMENT THAT MUST BE LINE HAULED, EQUIPMENT THAT CANNOT BE MOVED VIA RAIL, AND STACK HEIGHT LIMITS. THESE SHOULD BE IDENTIFIED PRIOR TO COMPLETING RAIL PLANNING, 90 DAYS BEFORE DEPLOYMENT, WHILE STILL AT HOME STATION.

BLOCKING AND BRACING — ENSURE REQUIRED TOOLS AND EQUIPMENT ARE ON HAND AT BOTH ENDS OF RAIL OPERATIONS, ENFORCE PROPER ACCOUNTABILITY, CONDUCT TRAINING BEFORE EXECUTION OF EACH SUBSEQUENT RAIL OPERATION, ENSURE SUFFICIENT STOCKS ARE AVAILABLE IN THEATER TO SUPPORT PLANNED OPERATIONS. ENGAGE WITH SENIOR RAIL OFFICIALS IN ALL COUNTRIES BEING TRANSMITTED TO GAIN COMMON UNDERSTANDING REGARDING BLOCKING AND BRACING STANDARDS, AND ESTABLISH COMMON STANDARD ENFORCED BY ALL RAIL PERSONNEL.

INTEROPERABILITY — IF RSOI WILL BE CONDUCTED IN CONTACT, IT IS IMPERATIVE THAT INTEROPERABILITY INFORMATION RESIDENT IN THE SUPPORTED ASCC OR SERVICING TSC STAFF BE PROVIDED TO INCOMING UNITS. (E.G. — FUEL DIFFERENCES, RECOVERY ASSETS, AMMUNITION, AND CAPABILITIES OF PARTNER NATIONS).

with setting the theater are not easily trained since they involve resources that units do not always directly control.

Coordination is difficult since the Army works with other nations during reception, staging, onward movement, and integration. The Army does its best to build skills and practice these tasks during emergency deployment readiness exercises, sea emergency deployment readiness exercises, and combat training center rotations.

But it is hard during training exercises to get the full impact of everything you might encounter in actual combat. So I encourage you to start asking questions about how you can prepare for that day when time is not on our side.

Four Considerations

Here are four questions, based on lessons I have learned and things I have seen lately, that sustainers should consider for training.

How can I be fully nested with the operational planners? Sustainment is absolutely instrumental in developing the initial contingency plan. Logistics planners must be fully nested with operators during planning to ensure sustainment considerations are carefully considered and that missions are supportable.

So, stay shoulder to shoulder in every phase of operational planning to ensure warfighters consider the sustainment capabilities that must be in theater, especially early on, before combat maneuver forces arrive. Also, stay shoulder to shoulder with Logistics Civil Augmentation Program organizations, and make certain these organizations have relationships with host nations.

What actions can I take to save time? I recently was able to observe two brigades engaged in setting the theater when the 3rd Armored Brigade Combat Team, 4th Infantry Division, and the 10th Combat Aviation Brigade, 10th Mountain Division, entered Europe. What stood out to me was the rapid implementation of lessons learned between these successive operations.

Lessons learned from the 3rd Ar-

mored Brigade Combat Team's deployment were rapidly applied in the deployment of the 10th Combat Aviation Brigade when it shipped and discharged its helicopters and equipment in Greece.

The 10th Combat Aviation Brigade intentionally procured a vessel that was tall enough so that when it loaded its helicopters in the continental United States in preparation for deployment, the rotors did not have to be removed. This made it much easier to place the helicopters into operational configurations when discharged.

To my amazement, when the helicopters were offloaded in Greece, it took only two hours before they were flying to their tactical assembly areas.

The brigade was able to achieve these results not only through great planning but also by working closely with the Military Surface Deployment and Distribution Command to procure a vessel appropriate for the type of equipment that had to be loaded and the mission on the other end. This also is an example of the impact logisticians can have; if we are involved early in the planning, we can decrease the time it takes to set a theater.

Am I training every day in garrison to do the basics correctly? Before we went to Afghanistan and Iraq, we were good at sustaining ourselves, but we have had little practice since, and an entire generation of Soldiers is used to maintenance and resupply being done for them.

These lost skills showed up as lost time during the exercises in Europe. In one case, equipment was not loaded onto a ship in unit sets, so it first had to be downloaded, moved to a holding area, and then moved a second time to a tactical assembly area where it could be configured. That wasted several days; we would not have had those extra days if we were executing an actual contingency.

We also lost time because we did not have drivers with the appropriate licenses to drive the combat equipment at the port. Nor did we have the right equipment at the rail site to handle the equipment that we

needed to download there.

These are the details you have to plan for. If you have not trained in a European environment, it is difficult to know all the NATO requirements, such as how to move hazardous materials or fuel. In the end, the units were successful and learned a great deal, but if this had been a real contingency, precious time would have been lost.

Do I have capabilities in place well before a contingency? During my assignment as the U.S. Central Command J-4, we developed what we called the Trans-Arabian Network. It was a ground transportation network that allowed precoordinated movement of U.S. supplies through Jordan, the United Arab Emirates, Kuwait, and Saudi Arabia.

We had been steadily operating in this area since Operations Desert Shield and Desert Storm, and then we were in a continuous state of conflict there since 2002, but we did not have a comprehensive ground distribution network.

Therefore, we did not always have the right commodities. We did not place them where they would be needed, and we were handicapped if we had to expand and execute another reception, staging, and onward movement operation. That all changed with the new road network. It is important that these types of capabilities be put in place well in advance of a contingency operation.

In an interview in this issue of *Army Sustainment*, one of my predecessors in the G-4, retired Lt. Gen. Raymond Mason, offers insights from his experience in setting theaters in both the U.S. Pacific Command and U.S. Central Command.

War waits for no one. Asking and answering the right questions will save time when it is needed, allow units to quickly build combat power, and possibly save lives.

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.

Force Projection and Force Reception Doctrine Update

■ By Maj. Gen. Paul C. Hurley Jr.

Doctrine is the vital bridge that links national-level guidance to tactical-level execution. It provides a common language and framework for operations for both a brand-new recruit just learning the Army and a seasoned commander on the battlefield, even though their individual tasks differ.

It captures lessons from operations and codifies them as guidelines that enhance operations and mission effectiveness across the Army. Find a unit with a library of dog-eared, highlighted, tabbed doctrine, and you will likely find a highly effective unit that is laser-focused on mission success.

Doctrine's Purpose

Doctrine has the twofold purpose of providing relevant, timely, and detailed guidelines that shape how we train and fight and providing maximum flexibility for the maneuver commander so that the force can capitalize on opportunities. It is developed for an Armywide audience rather than a specific unit, mission, or operation.

Army Doctrine Publication 1-01, Doctrine Primer, says that "doctrine serves as a starting point for thinking about and conducting operations," and when used as intended "makes six basic contributions to the conduct of operations and the development of military professionals. Each is vitally and equally important. Each contributes directly to the conduct of operations and mission effectiveness."

Doctrine makes these six contributions to the conduct of operations:

□ Provides a coherent vision of warfare.

- Enhances operational effectiveness.
- Provides a common frame of reference and cultural perspective.
- Provides a common professional language.
- Discusses Army contributions to unified action.
- States and fosters desirable traits in Soldiers and leaders.

The individual contributions are important, but all six pieces of the puzzle highlight that an operation has one designated commander and, through mission command, all actions are coordinated to support the commander's intent.

Striking a balance between the right level of detail and maximum flexibility is a challenge; the more complex the operation, the bigger the challenge. Force projection and force reception are operations that fall into this category.

Force Projection and Force Reception

According to Army Regulation 525-93, Army Deployment and Redeployment, force projection is "the ability to project the military element of national power from CONUS [the continental United States] or another theater in response to requirements for military operations. Force projection operations extend from mobilization and deployment of forces to redeployment to CONUS or home theater."

Force reception is a non-doctrinal term that describes the functions of reception, staging, onward movement, and integration (RSOI), which is "a phase of joint force projection occurring in the operational area during which arriving personnel,



The Combined Arms Support Command is revising doctrine and training in order to operationalize force projection and force reception policies.



Lithuanian soldiers and Soldiers from the 1st Infantry Division Sustainment Brigade, the 4th Infantry Division, and the 1st Armored Brigade Combat Team, 34th Infantry Division, load a Bradley fighting vehicle onto a heavy equipment transport system during the reception, staging, and onward movement phase of Exercise Saber Strike. (Photo by Staff Sgt. Jill People)

equipment, and materiel transition into forces capable of meeting operational requirements.”

Force projection and force reception have the common goal of enhancing the ability to meet operational requirements. To assess whether force projection and force reception doctrine as currently written is adequate to support contemporary operations, several key points about force projection and force reception must be understood:

- They are the processes by which combat power is generated.
- They are not just a logistics problem but are critical operational challenges that rely on the logistics infrastructure for successful execution.
- The ability to execute any mission largely depends on the speed with which combat power can be assembled at required locations.
- They are about much more than merely bringing Soldiers and equipment into the theater; seg-

ments must be efficiently received, rapidly formed into units, expeditiously moved to tactical assembly areas, and seamlessly integrated into operations.

- The numbers, types, and sequencing of these units must support the commander’s concept of operations.
- They must be included in the earliest stages of operational planning.

In other words, force projection and force reception, especially as they relate to setting the theater, are not logistics or maneuver discussions but instead are a series of coordinated actions to rapidly and effectively accumulate combat power to achieve tactical and positional advantage over the enemy.

Current Doctrine Considerations

At the height of Operations Enduring Freedom and Iraqi Freedom, sustainment operations in Kuwait were robust. With few exceptions, the ground and air lines of communication were fully capable of support-

ing ground-centric operations.

While manning and equipping were near maximum levels, “patch chart” rotations and an established relief in place/transfer of authority process provided stability and predictability. The theaters of operation were set, forces and footprints were in place and mature, and support agreements were negotiated and funded. Redundant capability existed to mitigate almost all risk.

Fast-forward to Operations Inherent Resolve and Freedom Sentinel, and the landscape is markedly different. The 1st Theater Sustainment Command (TSC) in Kuwait supports Iraq, Afghanistan, Egypt, and myriad operations scattered across the U.S Central Command area of responsibility.

Operations are air-centric and coalition-driven. Force manning levels are restricted, and operating at the speed of war has stressed processes and systems close to the breaking point.

This new operational environment

has also, in many areas, pushed day-to-day operations past what is covered in regulation and doctrine. In response to the environmental stressors, the 1st TSC adapted current and developed new sustainment solutions that must be analyzed for inclusion in doctrine.

Here are some examples of the solutions the 1st TSC adopted:

- Virtual, distributed mission command to coordinate and synchronize efforts across theater.
- Widely dispersed sustainment structure leveraging systems and ad hoc methods to report statuses, shortfalls, and requirements.
- Embedded personnel at all echelons to support concurrent planning.
- Strategic assets achieving tactical effects by using reachback capability.
- The development of an operational contract support integration center at the corps and Army service component command (ASCC) levels to streamline processes to operate at the speed of war.
- Reachback to the U.S. industrial base to meet emerging demands.
- The use of U.S. war stocks to bridge the required supply rate gap.

High-velocity, extremely lethal, decentralized operations are necessary to survive and win current and future conflicts, and doctrine must recognize this reality.

Operationalizing This Doctrine

Before digging into operationalizing force projection and reception doctrine, a few nondoctrinal terms need to be discussed, namely “set the theater,” “speed of assembly” (SOA), and “speed of integration” (SOI). In the absence of official doctrinal definitions for these terms, here are some working definitions for the purpose of this discussion.

Set the theater. Set the theater includes the broad range of actions conducted to shape the operational environment, deter aggression, and establish conditions in an operation-

al area for the execution of strategic plans. Set the theater is a geographic combatant command responsibility, is continuous, and includes the whole-of-government initiatives, including bilateral or multilateral diplomatic agreements.

Set the theater serves the purpose of establishing favorable conditions for conducting military operations and the support requirements for a specific operation plan during crisis or conflict. It addresses the requirements necessary to support the geographic combatant commander’s theater campaign plan, including agreements that allow U.S. forces access to ports, terminals, airfields, and bases within the area of responsibility to support future military contingency operations.

SOA. SOA includes all actions and functions associated with reception of equipment, containers, and personnel and all tasks required to transition materiel into combat power.

SOI. SOI includes all actions and functions associated with the staging, onward movement, and integration of combat power from a port of debarkation to forward battle positions.

SOA and SOI should be understood as relating primarily to rapidly configuring entire unit or mission sets to support the concept of the operation while synchronizing arriving personnel and equipment with movement and maneuver requirements. Setting the theater is not a separate function but, rather, a sub-function of mission command.

Mission orders are not intended to restrict but, instead, to focus all organizations on the commander’s intent and operational endstate—the “what to do” rather than the “how to do.” As part of this, doctrine provides guidelines for all Army warfighting units and organizations and integrates the actions of joint, interagency, intergovernmental, multinational, and commercial partners.

Operationalizing doctrine starts during the planning and predeployment phases of a deployment. As

doctrine evolves to discuss setting the theater, SOA, and SOI, it must also discuss, at a minimum, these topics:

- Establishing access to theater agreements.
- Deployment timelines for Army pre-positioned stocks.
- Operational contract support roles and responsibilities.
- Army support to other services and multinational agreements.

Command Authority

A critical principle to understand is unity of command. Joint Publication 3-0, Joint Operations, states that the “operation of all forces must be under a single responsible commander who has requisite authority to direct and employ those forces in pursuit of a common purpose.”

Taken in the context of operationalized force projection and force reception doctrine, the designated ASCC for a theater has authority and responsibility for all operations, including force projection and reception. Those functions are part of movement and maneuver to set the theater and not separate logistics functions that happen before the fight begins.

The TSC or designated senior sustainment unit executes force projection and force reception operations in theater in accordance with the commander’s intent. Within a theater, the G-3 or J-3 is responsible for the overall synchronization of operations, while the G-4 or J-4 provides oversight and support for sustainment.

Setting the European Theater

When the 3rd Armored Brigade Combat Team, 4th Infantry Division, rotated to Europe in early 2017, one of the U.S. European Command’s stated goals was to stress the ability of units to conduct RSOI in the European theater of operations. As part of set the theater operations, SOA and SOI were critical metrics in measuring success.

Two distinct challenges affected

force projection and force reception operations. First, operations of this type were last conducted in Europe when V Corps, the 1st Armored Division, and the 1st Infantry Division were in place with all their associated enablers and joint and multinational support.

Second, previous doctrine contained more robust language to guide force projection and theater-specific regulations, policies, and agreements. These guidelines accounted for the requirements unique to Europe and its surrounding countries.

What the U.S. European Command commander was interested in was how fast units could be configured for combat and moved forward to execute operations. Receiving masses of preconfigured equipment and containers was simply considered part of the process.

Overall, the operation was considered a success. Just as important were the valuable lessons learned that will inform future doctrine, process, and policy updates. The lessons learned include the following:

- RSOI is a mission-essential task for the ASCC in order to ensure coordination across operational- and strategic-level units and organizations.
- TSC roles and responsibilities must be coupled with appropriate staff augmentation and expertise.
- Armywide doctrine and processes must account for local policy, supplemental requirements, and multicountry agreements.
- Gaps in doctrinal language create confusion, especially relating to theater-unique capabilities such as the European Activity Set, road clearance and border crossing requirements, and in-transit visibility of equipment on host-nation transportation assets.

While the 21st TSC and 16th Sustainment Brigade provided the backbone for execution of operations, coordination across the many organizations was an ASCC critical task.

Keeping Doctrine Current

At any given time, Combined Arms Support Command (CASCOM) doctrine developers have multiple publications in various stages of development, revision, and staffing. Events and changes in the operational environment can also drive out-of-cycle updates to specific doctrine.

For example, the 2016 Army Materiel Command-hosted Army Senior Logistics Summit directed the analysis and revision of force projection, distribution management, and materiel management doctrine. These publications are a sampling of the doctrine that is currently under revision:

- Army Techniques Publication (ATP) 3-35, Army Deployment and Redeployment.
- ATP 4-16, Movement Control.
- ATP 4-93, Sustainment Brigade.
- ATP 4-94, Theater Sustainment Command.
- Field Manual 4-95, Logistics Operations.

Parent and subordinate doctrine publications individually reflect operations fairly consistently, but they have gotten out of sync. Efforts are ongoing to “re-sync” definitions, roles, and responsibilities across all documents

For example, the revision of ATP 4-16 included language and references about the roles and responsibilities of operational contract support units and personnel as they relate to movement control in a theater of operations. This information is missing from the current version.

Significant gaps exist that require major revisions or the development of new publications. For example, ATP 4-94 is under revision to further define the roles and responsibilities of the expeditionary sustainment command and to clarify the differences between TSC and expeditionary sustainment command responsibilities in a theater of operations.

Doctrine has a couple of challenges.

First, doctrine is authoritative but requires judgment in application. The proper balance of direction will enhance the maneuver commander’s agility and flexibility to adapt to the operational environment; having too much or too little direction can hinder that agility.

Second, doctrine is written for an Armywide audience to provide a common framework and language for operations. In-theater operations require additional and more specific instructions that cover the type of operation, rules of engagement, theater-specific agreements, and operation plans.

As the Army’s lead for sustainment and logistics, CASCOM is analyzing and revising doctrine and training to meet the needs of the institutional and operational force. Feedback is critical to this process. Events like the quarterly combat training center collaboration, reverse collection and analysis team engagements, and formal events and activities like force design updates, wargames, and rehearsal of concept drills, provide this vital link.

The CASCOM Deployment Process Modernization Office is working with organizations and directorates internal to CASCOM and across the Army and joint communities to revise, staff, and publish doctrine updates that will mitigate future challenges relating to deployment, force projection, and force reception.

Force projection and force reception are at the heart of Army readiness. This fact is guiding and directing CASCOM efforts to develop doctrine, organizations, and concepts that support the warfighter. The commander owns all aspects of operations, to include force projection and force reception, but everyone has a role to play.

Maj. Gen. Paul C. Hurley Jr. is the commanding general of CASCOM and the Sustainment Center of Excellence at Fort Lee, Virginia.

The OSD Logistics Fellows Program: A Glimpse From Above

The Office of the Secretary of Defense offers field-grade officers and civilian equivalents the opportunity to participate in a fellowship that explores logistics and policy at the national level.

■ By Bryan L. Jerkatis

Nearly 3 million men and women make up the Department of Defense (DOD), but not many are given the opportunity to learn the fundamentals of legislation, budget, policy, and oversight from the highest level of the DOD. The Office of the Secretary of Defense (OSD) Logistics Fellows Program provides this opportunity and allows selected logisticians to broaden their perspectives of these critical fundamentals.

The OSD Logistics Fellows Program is open to officers in the ranks of O-4 and O-5 and DOD civilian logisticians in the grades of GS-13 and GS-14 or equivalent. This one-year, unit-funded fellowship is a developmental assignment with an atmosphere that fosters learning, growth, and experiential opportunities.

The program is administered by the Office of the Assistant Secretary of Defense for Logistics and Materiel Readiness. Fellows have the unique opportunity to participate in policy formulation and DOD-wide oversight responsibilities.

What the Fellowship Entails

During this program, fellows gain the experience of a one-year assignment as OSD Acquisition, Technology, and Logistics staff specialists. Throughout their time in the fellowship, fellows experience enrichment opportunities including travel and education that bolster the proficiency that participants gain from this invaluable experience.

Fellows travel and tour both the public and private sectors in order to observe firsthand private industry lo-

gistics operations and benchmark best practices. Through visits to Congress, fellows gain exposure and insight into legislative processes. They are also able to attend national-level forums and engage in collaborative efforts with industry partners.

Depending on their assignments, fellows may have the opportunity to visit and become familiar with other government agencies. Perhaps even more importantly, the fellowship affords participants opportunities to observe and interact with both appointed and career senior executives and flag officers. These interactions include one-on-one meetings with senior logistics leaders from the military departments, the Joint Staff, OSD, and other agencies.

The insights and big picture knowledge available through the fellowship are virtually endless. The fellows themselves determine much of their training and class agendas.

During my fellowship, I was tasked to resolve a long-standing logistics policy challenge within the DOD. I was given considerable leeway to gain needed expertise and formulate a recommendation. My work led to the publication of a new DOD directive.

Other fellows led financial accountability program initiatives, participated in DOD-level awards processes, led worldwide maintenance symposiums, and participated in source selection committees and other DOD-level initiatives.

The Camaraderie of Fellows

The OSD Logistics Fellows Program has a long history and an important ca-

maraderie component. Fellows share a common bond, form a support structure, and face many diverse challenges together. Graduates become part of a legacy of OSD logistics fellows.

The OSD Logistics Fellows Program provides an opportunity to forge life-long bonds and friendships with other logistics professionals and to build networking abilities that will serve them for the remainder of their careers and beyond. Upon completion of the program, fellows return to their sponsoring organizations or follow-on assignments with increased management skills, technical expertise, and contacts across the DOD logistics network.

The OSD Logistics Fellows Program provides DOD logisticians with a rich experiential odyssey and the opportunity to obtain a deeper career understanding of OSD and how it affects the DOD enterprise. Interested individuals should look for fall program announcements each year. Additional information regarding program specifics and the nominations process can be found on the OSD Transportation Policy website.

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Contractors maintain equipment for Army pre-positioned stocks at Camp Arifjan, Kuwait, on Oct. 22, 2016. (Photo by Sgt. Angela Lorden)

Soldiers Are From Mars, Contractors Are From Jupiter

■ By James L. Kennedy

Soldiers and contractors bring different perspectives, approaches, and most importantly, different operating procedures to accomplish the mission. Logistics Soldiers follow standing operating procedures, policies, and Army regulations (ARs) taught to them by supply and motor sergeants. However, Soldiers need to adjust their mindsets and understand how procedures differ when contractors support missions.

One concept that is not understood well is that many of the differences in how the Army and contractors op-

erate originate from their different authorities. The Army follows ARs, doctrine, a commander's guidance, and other authorities. Contractors follow contract requirements that are written in accordance with the Federal Acquisition Regulation, which applies to the U.S. government, and the Defense Federal Acquisition Regulation Supplement, which applies to the Department of Defense.

Military leaders are generally unaware of the differences between these authorities, and this lack of awareness often leads to conflict.

Three main areas of misconception are inspections, supply, and maintenance.

Inspections

One overarching misunderstanding is that contractors are included in organizational inspection programs. The only government personnel authorized to inspect contractor operations are the contracting officer (KO) and his or her designated representative, usually a contracting officer representative (COR).

If a contractor is providing equip-

ment maintenance, the battalion or brigade cannot inspect the contractor's records, schedules, training certificates, documentation, or other items. Commanders must request that the COR inspect the contractor in accordance with the contract and provide the commander with a report.

Contractor operations follow the contract, which includes a performance work statement that outlines how the contractor will perform the mission. The statement may not comply with Army policies. Therefore, commanders and leaders need to know the contractual requirements because those are the obligations that the contractor must follow and fulfill.

For example, if a contractor is repairing weapons that are required to be secured, the contract must define what "secured" means. Otherwise the contractor will define it. Unlike the military unit that the contractor is supporting, the contractor is not bound by AR 190-1, Army Physical Security, unless the contract specifies so.

Supply

When a unit provides government furnished property (GFP) to contractors in support of a mission, the equipment must remain on government property books in Property Book Unit Supply Enhanced or the Global Combat Support System-Army.

However, the equipment is not signed over by the unit to the contractor on a Department of the Army (DA) Form 3161, Request for Issue or Turn-In, or a DA Form 2062, Hand Receipt. Instead, the KO transfers the equipment as part of the contract by including a Department of Defense Form 1149, Requisition and Invoice/Shipping Document, and a Scheduled GFP Attachment.

The unit provides the equipment's administrative data to the KO, who then incorporates the data into the contract. The contracting command assigns a property administrator to manage contractor-controlled GFP.

Units do not inventory any equipment provided to contractors during the contract period. The property administrator or COR (if authorized) can check to ensure property is accounted for and that it is being used in accordance with the contract but only if these checks are included in the terms of the contract.

This also means that the unit will not inventory the equipment during changes of command or 10-percent inventories. The Department of Defense Form 1149 and the Scheduled GFP Attachment will serve as the accountability documents.

Inevitably, a piece of equipment loaned to a contractor will need to be repaired or replaced. When this happens, the unit cannot just take back a truck and provide another.

The equipment must be contractually transferred and the contract must be modified by the KO to reflect the change. KOs can usually execute these simple contract modifications quickly and easily, and updating the contract will prevent subsequent accountability problems.

If GFP is lost or damaged while in the possession of a contractor, the contractor notifies the KO and the property administrator informs the unit. If the equipment is lost, the property book office of the unit that made the loan will initiate an abbreviated Department of Defense Form 200, Financial Liability Investigation for Property Loss.

If the equipment is damaged, the COR or property administrator will notify the KO, who will initiate an



Sgt. 1st Class Christopher Trejo, a quality assurance maintenance noncommissioned officer for the 401st Army Field Support Brigade, checks a contractor's work on Oct. 21, 2016, at Camp Arifjan, Kuwait. (Photo by Sgt. Angela Lorden)

investigation and determine if any financial liability exists. If financial liability is determined, the KO and the contractor determine how much, and then the contractor makes a payment to the U.S. Treasury, not to the unit that loaned the equipment. Damaged equipment may be returned to the unit, which will have to use unit funds to repair it.

If the contracted company changes, the entire GFP process is repeated. The outgoing company returns GFP

money the contractor owes the government to return the equipment to the -10/20 maintenance standard is paid to the U.S. Treasury.

When a contract stipulates that the unit will provide equipment for a contractor, the unit needs to talk with the KO about whether the unit or contractor will provide repair parts and repair the equipment while the GFP is in the contractor's possession. If the contractor provides maintenance and repair parts, the cost of

checklist. For more information, visit the Command Supply Discipline Program and Property Accountability Knowledge Center online at <https://www.us.army.mil/suite/page/670916>.

Soldiers cannot assume that the Army and its contractors operate in the same way. The best adage to use would be, "If you are dealing with contractors using Army regulations or methods, then you are probably doing it wrong; call the KO."

To mitigate confusion, keep in contact with your KO or property administrator, assign a responsible COR to manage the contract, provide CORs with the necessary training and time to accomplish their duties, and accept that there are manageable differences between the Army's and contractors' processes. Together we can improve the relationship between the two systems, reduce misunderstanding, and improve mission accomplishment and readiness. The key to success is a collaborative effort between the KO and the unit in which the KO is the expert in writing contracts and the unit is the expert in the requirements to be completed.

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Subject matter experts from the Army G-4 and Army Contracting Command contributed to this article.

Understanding the differences between Army logistics and contracted logistics can reduce confusion and improve contractor-provided services.

to the unit or sometimes to the KO, who includes the GFP in the new contract. The GFP is then reissued to the incoming company in the new contract, similar to how incoming commanders sign for organizational equipment during changes of command. The difference is that an external entity, the KO, must be involved when there is a contractor.

Maintenance

When transferring equipment to a contractor, the providing unit must ensure the contract stipulates the condition that the equipment must be in upon return to the government. For example, does the contract require the equipment to be returned as is, in the same condition as at initial issue, or within the -10/20 maintenance standard? Or does the contract require an inspection and funding to return the equipment to a specified condition? This topic needs to be discussed with the KO early in the contracting process.

Only the property administrator and the COR are authorized to check on GFP readiness and only to ensure equipment is maintained in accordance with the contract. Any

the contract will increase. If the unit provides parts and maintenance, the work will have to be performed with the contractor as a customer of the maintenance unit.

An issue that is not specifically addressed in AR 220-1, Unit Status Reporting, is how or if contractors should provide readiness data on GFP to the loaning Army unit. If the unit wants the data reported, the best practice is to determine the requirements at local levels and to write into the contract what data is needed and at what frequency.

The Way Ahead

The Army G-4 office is currently working on several efforts to inform the force of the operational differences of working with contractors. To reduce confusion, the G-4 office is updating AR 735-5, Policies and Procedures for Property Accountability, and DA Pamphlet 710-2, Supply Policy Below the National Level.

The office is also coordinating with the Quartermaster School to include GFP training in supply personnel courses and to produce a GFP command supply discipline



Stryker vehicles from the 1st Stryker Brigade Combat Team, 25th Infantry Division, make their way down the USNS Shughart's gangplank in preparation to return to Fort Wainwright, Alaska. (Photo by John Pennell)

Building an Expeditionary Army for the Future

■ By Alvin Crowder and Charlie Brown

The Army must overcome the challenges of rapidly moving relatively large forces from the continental United States to distant locations to fight an informed and capable enemy. The Army must be able to employ sufficient, organized forces across all domains, in all environments, under all conditions, without relying solely on a robust reception and staging system. It must move toward becoming an expeditionary Army.

The preface of the U.S. Army Operating Concept: Win in a Complex World states that “the key to a Strategic Win is to present the enemy

with multiple dilemmas.” It goes on to say that “future forces operating as part of joint teams will conduct expeditionary maneuver through rapid deployment and transition to operations.”

The concept defines expeditionary as the “ability to deploy task-organized forces on short notice to austere locations” and being “capable of conducting operations immediately upon arrival.” It defines expeditionary maneuver as “the rapid deployment of task-organized combined arms forces able to transition quickly and conduct operations of sufficient scale and ample dura-

tion to achieve strategic objectives.”

The concept does not envision the Army conducting amphibious operations to establish lodgments against an armed and determined enemy, but the benefits of expeditionary maneuver, including rapid deployment, give a joint force commander excellent options for employing ground forces.

Expeditionary Operations in World War II

The Army Operating Concept describes the Army's projected capabilities for the time frame of 2020 through 2040. But the same words

could have been written in the early 1940s, when the United States was fresh off a successful North African campaign and the decision was made to attack the “soft underbelly of Europe.”

In July 1943, 3,000 ships, 4,000 aircraft, 150,000 Allied troops, and heavy equipment including 600 tanks commenced Operation Husky, the Allied invasion of Sicily. The U.S. Army, as part of a joint and multinational team, executed expeditionary maneuver across the air and maritime domains and presented the enemy with multiple dilemmas.

The Allies carried out Operation Husky using strategic deception against a determined enemy. They complemented air and sea maneuver with air and naval fires in a coordinated attack that allowed a quick defeat of the enemy. The dilemmas provided by the maneuvering forces were too many to overcome, and the battles brought a quick end to Italy’s participation in the war.

Today’s Challenges

The expeditionary maneuver quandary, like all resource quandaries, comes down to efficiency versus effectiveness, today’s real problems versus tomorrow’s potential problems, and the comfort of a system you know versus the uncertainty of a system you do not know.

The Army is designed to conduct sustained land operations that require the application of joint and combined arms movement and joint fires. Its forces are supported with a large deployment and sustainment footprint.

The Army is predominantly a heavy force, with 60 percent of its active divisions and 43 percent of its active and reserve maneuver brigade combat teams (BCTs) either mechanized or armored. Even company-sized units can burn hundreds of gallons of fuel per hour, and a single cannon artillery weapon system can consume almost 5,000 pounds of munitions and propellant per day.

The Army’s current paradigm for

deploying heavy forces consists of an administrative move focused on efficiency under absolute minimal threat or risk. Forces are deployed from strategic ports that allow the berthing of large vessels, some of which take up to three days to load or offload.

Oversized cargo planes deploy personnel and equipment far from home stations. They require a robust ground operation to ensure they are discharged and serviced quickly since the process will be repeated thousands of times during a large deployment.

As enemy capability increases and deployment potentially becomes contested, these safe harbor ports get farther away from the final destination, complicating the onward movement of forces. Support for the forces comes from the host nation, is pre-positioned, or is delivered from ships and planes likely using the same ports as were used for the deployment.

Long operational distances stress even the best-executed system; enemy actions or even adverse weather will make the situation worse. Having safe harbor ports of debarkation outside of enemy anti-access/area-denial capabilities makes onward movement capabilities essential.

Cross-domain Movement

Cross-domain movement is affected by the capacity of transportation systems, not to mention the infrastructure that the systems must traverse.

The ground domain. Let’s consider the ground domain. A single armored BCT (ABCT) has almost 250 heavy armored vehicles, including tanks, armored fighting vehicles, self-propelled howitzers, ammunition carriers, and bridging and breaching vehicles.

There are 1,554 heavy equipment transporters (HETs) in modified table of organization and equipment units. All of the active duty HETs, if committed to a single operation, could move approximately 1½

ABCTs’ worth of heavy vehicles.

The air domain. The air domain is even more difficult. If airfields capable of accommodating a C-17 Globemaster aircraft were even available at the origin and destination, an ABCT would still require more than 500 C-17 sorties to move its vehicles, equipment, and personnel, not including supplies. The requirement to airlift a single ABCT requires more than two times as many C-17s as there are in the entire U.S. inventory.

The sea domain. Onward movement across water is even more challenging than moving across ground and air. The limiting factor for watercraft is usually volume, not mass. The same ABCT has well over 400,000 square feet of vehicles and equipment.

The Army currently has two types of watercraft for unit moves: the logistics support vessel (LSV) and the landing craft utility (LCU). The LSV is the larger of the two boats, with 10,500 square feet of deck space. The Army has 6 LSVs in the active component and two in the reserve component. The LCU has 2,500 square feet of cargo space; 10 LCUs are in the active component, and four are in the reserve component.

If all of the active and reserve LSVs and LCUs could be simultaneously crewed and were available to move an ABCT, it would still take more than four turns to close, assuming an 80 percent stow factor for the boats. An infantry BCT, presumably the lightest and most mobile maneuver BCT, requires almost three turns of all available watercraft.

Are We Expeditionary?

Is today’s Army the expeditionary Army that we envision for the future? The Army has signaled that it will keep the BCT structure in the foreseeable future. The Army is proposing that the infantry BCT have even more equipment. The trend is to have heavier armor and more le-

thal (hence, bigger) munitions.

Any maneuver BCT will not likely deploy and operate as the lone ground force. A BCT is unlikely to operate independently because too much required Army capability resides outside of any maneuver BCT.

While the BCTs can change their organizations to allow them to operate semi-independently, there is a time frame right after deployment in which they have only a small fraction of their required supplies. A BCT requires a logistics source on the ground before it can get to an operational status. Adding capacity to the BCT does not negate this limitation.

The numbers indicate that if the Army wants to move the BCTs, it must activate reserve units and deploy those assets ahead of the BCTs. It must establish a sustainment apparatus in theater, again likely activating and deploying reserve forces. For the Army to fight an enemy that can employ lethal effects across operational distances, these sustainment organizations require protection and potentially fortified positions.

Tomorrow's Opportunities

If decisive victory requires the deployment of multiple brigades, how can the Army become expeditionary and effective? The Army Operating Concept offers capabilities that will mitigate some of the problems, but it does not present an easily achievable method of getting there.

Reducing the logistics footprint required for operations is a common-sense means of becoming expeditionary, and the Army is committed to getting there by reducing demand. Reduced demand is not just sustainment, however.

Active protection systems can reduce armor requirements and, hence, fuel requirements; precision munitions or submunitions can hit targets more effectively; higher reliability not only reduces spare parts demand but builds combat power as a byproduct.

The Army must get to the point of deploying combat-configured per-

sonnel and equipment. Equipment is matched with personnel and supplies in a reception, staging, onward movement, and integration process that is too long. Sustainment forces have to set the theater before forces can arrive.

This model works well in secure rear areas or with sufficient host-nation or contracted support, but it would be less effective in other instances, such as austere or non-

After years of having a mature-theater force structure and secure lines of communication, the Army is changing into an expeditionary force that can conduct sustained operations in all domains.

permissive environments. Combat configured armored forces with full complements of supplies may require a top-to-bottom analysis of how, when, and where U.S. forces deploy.

The Army must be able to exploit the maritime domain as an avenue of approach. Deploying to a sea base, or even a close intermediate staging base, provides opportunities to defeat anti-access/area-denial measures and to present multiple dilemmas to an adversary.

Armored forces predominantly move over water, and the likely seaport of debarkation may be untenable. Having the ability to create a moving seaport of debarkation anywhere in the world that can effectively process a deployment is a potent capability. Regardless, the Army or joint force must have waterborne mobility to make sufficient and simultaneous maneuver from the sea practical.

The sea base alternative is likely expensive, dangerous, and demanding, but the payoff could enhance the Army's expeditionary capability. Besides permitting maneuver from an unexpected direction, the sea base

would allow movement to multiple entry points, the ability to mitigate enemy countermeasures, and the opportunity to employ combat configured forces while potentially reducing the on-ground logistics footprint.

The Army has a huge challenge ahead. It has a forward-deployed, mature-theater force structure with assumed secure lines of communica-

tion, and it is attempting to change that force into a continental United States-based expeditionary Army that still retains the ability to conduct sustained land operations.

It must move toward becoming an expeditionary Army. As Operation Husky proved, having an expeditionary Army that overcomes challenges and delivers lethal, survivable, and sustainable forces to positions of advantage can result in opportunities for quick and decisive victory.

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Setting the Theater in the Middle East

■ By Maj. Gen. Flem B. “Donnie” Walker Jr., Col. Mike Egan, and Maj. Keith M. Kacmar

Paratroopers load munitions onto a helicopter at Forward Operating Base Shalalot, Iraq, on July 6, 2017. The ammunition needed to sustain the fight in the U.S. Central Command area of operations is provided by the 1st Theater Sustainment Command operational command post. (Photo by Sgt. Christopher Bigelow)



“Setting the theater is the most important line of effort for the 1st Theater Sustainment Command. Set the theater links current operations and future plans with the sustainment enterprise to ensure the TSC is postured to meet all U.S. Army Central sustainment requirements across the full range of military operations within the U.S. Central Command area of responsibility.”

—Maj. Gen. Flem B. “Donnie” Walker Jr.,
1st Theater Sustainment Command

Logisticians from the 1st Theater Sustainment Command execute a deliberate process to set the theater in the U.S. Central Command area of responsibility.

The U.S. Central Command (CENTCOM) area of responsibility (AOR) is arguably one of the U.S. military's most complex operational environments. It encompasses more than 4 million square miles stretching across the Middle East from Northeast Africa to Central and South Asia. It is home to 550 million people who belong to multiple religions, speak multiple languages with hundreds of dialects, and identify with cultures that often create adversarial relationships among neighboring states.

This regional complexity poses significant challenges for the 1st Theater Sustainment Command (TSC). Therefore, it is imperative that the command's logisticians execute a deliberate process for setting the theater. The process must provide a thorough understanding of the theater's capabilities and shortfalls, including both infrastructure and political realities.

The TSC must also have a method to measure progress on key objectives and develop ways to mitigate risk. Ultimately, set the theater operations support the maneuver plan and, when executed using a defined framework, allow maximum flexibility for the combatant commander.

The 1st TSC's Process

Setting the theater is an Army core competency. It consists of the operations and actions that organizations execute during phase 0 (shape) of the joint phasing model. Phase 0 actions establish and maintain favorable conditions for conducting military operations in follow-on phases. These actions are necessary to deter conflict, and if deterrence fails, they enable the joint force to seize the initiative, protect the force, and restrict enemy freedom of action.

To support U.S. Army Central's (ARCENT's) efforts to set the theater, the 1st TSC developed this four-step methodology based on the Army operations process:

- Identify sustainment requirements for current operations and

contingency plans.

- Assess current and projected capabilities in order to identify gaps and risk.
- Plan operations and actions that mitigate risk.
- Execute the operations through the orders process and mission command.

By employing this method, the 1st TSC planned and executed several significant set-the-theater operations and actions across the CENTCOM AOR. This process is a way for the TSC to contribute to setting the theater and provides an example for TSCs in other combatant command AORs.

Identifying Requirements

The first step in the 1st TSC's set-the-theater process is identifying sustainment requirements for current operations and contingency plans. To identify these requirements, the 1st TSC develops concepts of support, validates the concepts through rehearsal of concept (ROC) drills, and organizes valid requirements into logical categories.

The primary sources for sustainment requirements are the concepts of support for current operations and contingency plans. The support operations distribution management center, human resources support center, and financial management support center produce these concepts in coordination with the G-5 plans section.

Each concept lays out sustainment requirements, available sustainment capabilities, and the way the TSC will employ each capability to meet the requirements of the operation. Once these concepts are developed and completed, the TSC must validate them through ROC drills.

The ROC drills typically focus on a particular operation and include key stakeholders from all major commands in the theater and strategic partners within the sustainment enterprise. The intent of these drills is to validate the current concepts of

sustainment and develop assumptions about the future theater posture and sustainment plans for a three- to five-year time frame.

After the ROC drills, the 1st TSC organizes the validated requirements from each concept into five categories for assessment. The 1st TSC categorizes sustainment requirements and capabilities using the four theater posture elements found in Joint Publication 5-0, Joint Operation Planning, which are forces, footprint, materiel, and agreements. Operational contract support is the fifth category.

Each category has an office primarily responsible (OPR) that tracks validated sustainment requirements and capabilities across all of the concepts of support to facilitate the assessment process.

Assessing Current Capabilities

The next step in the set-theater process is assessing current and projected theater sustainment capabilities against requirements in order to identify gaps and risks. To perform this assessment, the 1st TSC conducts an assessments working group and presents an assessment briefing.

The biweekly assessments working group is the core of the assessment process. The G-5 plans section chairs it and all OPRs attend.

Each OPR develops a set of objective metrics to assess capabilities versus requirements within its particular category. These metrics, along with current and projected sustainment requirements and capabilities, form the inputs to the working group.

During the working group, the OPRs determine capability gaps and develop a narrative to articulate risks to the mission and force. The output of this working group forms the basis for the assessment briefing.

The OPRs present their assessments to the 1st TSC's commanding general (CG) during a formal briefing in the first month of each quarter. Each OPR is responsible for briefing the key changes from the previous assessment along with the outputs from the working groups.

With this briefing, the CG can combine objective data with his own observations and experience, make decisions about risks, and provide his intent for mitigating risks. The guidance from this briefing provides the input required to plan risk mitigation operations and actions.



Iraqi soldiers unload Iraqi Train and Equip Fund parts from the 300th Sustainment Brigade to repair howitzers, humvees, and other tactical vehicles on Aug. 11, 2016. (Photo by Sgt. 1st Class Naurys Marte)

Mitigate Risk

The third step in the process is developing plans for operations and actions that mitigate risk. To conduct this planning, the 1st TSC executes a plans working group and a decision briefing. The G-5 plans section again chairs the biweekly plans working group and all OPRs attend.

Each OPR analyzes the gaps and risk presented during the assessment briefing along with the CG's guidance and then develops a "get well" plan of actions and milestones (POAM) for its respective category. The POAM articulates how the proposed operations and actions will address gaps and risks, required resources, and key intermediate objectives over time.

During the working group, the

OPRs synchronize their POAMs with each other and with current operations to produce a consolidated set-the-theater synchronization matrix. The output from this working group forms the input for the decision briefing.

The OPRs propose their POAMs to the CG during a formal decision briefing in the second month of each quarter. This briefing gives the CG the opportunity to accept, modify, or reject the plans and to issue additional guidance.

Following the decision briefing, the OPRs modify the plans if necessary and publish a quarterly set-the-theater fragmentary order to the 1st TSC's base operations order. The fragmentary order provides the direction that is necessary for the 1st

TSC staff and subordinate units to execute set-the-theater operations and actions.

Execute Orders and Mission Command

The final step in the process is executing set-the-theater orders through mission command. Because the 1st TSC main command post is located at Fort Knox, Kentucky, time and distance force the command to rely on an operational command post (OCP) at Camp Arifjan, Kuwait, to execute set-the-theater activities.

The TSC is not doctrinally structured to provide long-term forward mission command to both tactical and operational sustainment operations. So, a forward deployed expeditionary sustainment command augmented by a 1st TSC plans cell forms the OCP. This hybrid structure allows the OCP to focus on executing the tactical and low-level operational tasks of setting the theater and permits the main command post to focus on high-level operational and strategic tasks.

While this structure requires clearly delineated roles and responsibilities, it allows the 1st TSC to execute set-the-theater operations throughout the levels of war. As these operations and actions progress, the 1st TSC continually reassesses its effects to provide feedback into the set-the-theater process.

Setting the CENTCOM Theater

This process has enabled the 1st TSC to contribute to setting the theater in several significant ways. The 1st TSC has improved distribution networks, increased sustainment capabilities supporting Operation Inherent Resolve (OIR), modernized theater-provided equipment (TPE), and redistributed munitions stocks.

Distribution network improvement. The 1st TSC's region of the CENTCOM AOR did not have an integrated distribution network similar to the Northern Distribution Network, which supported operations in Afghanistan. As a result, the



Rounds of 155-millimeter ammunition, provided by the 1st Theater Sustainment Command operational command post, are prepared for movement at Forward Operating Base Shalalot, Iraq, on July 6, 2017. (Photo by Sgt. Christopher Bigelow)

1st TSC saw significant delays in the joint reception, staging, and onward movement (JRSO) of personnel and equipment from ports of debarkation to forward operating locations.

To address this issue, the 1st TSC, in coordination with ARCENT and CENTCOM, focused on improving of the Trans-Arabian Network in order to increase ports of debarkation and distribution routes to provide flexibility in support of JRSO.

To achieve this effect, the 1st TSC worked through the ARCENT theater security cooperation program to increase infrastructure capacity and address customs challenges through the six Gulf Cooperation Council countries. The 1st TSC also partnered with CENTCOM to integrate the CENTCOM Deployment and Distribution Operations Center with the OCP Transportation Operations Branch to streamline distribution management between service component commands.

OIR sustainment. The set-theater process contributed to an increase of sustainment capabilities in support of OIR. The rapid increase in OIR sustainment requirements and support to Iraqi and Syrian defense forces required the 1st TSC to shift sustainment forces from Operation Spartan Shield (OSS) to OIR. This reduced sustainment capability in support of OSS.

To address this issue, the 1st TSC worked with Combined Joint Task Force-OIR to submit requests for additional sustainment forces. Because of this coordination, the 1st TSC was able to improve support to OIR and return sustainment capability to OSS.

TPE modernization. For years, units that deployed to the CENTCOM AOR have relied on TPE to reduce the demand on strategic lift assets. Unfortunately, this has resulted in the atrophy of institutional knowledge about deploying units and conducting JRSO with full modified table of organization and equipment allowances. The Army also does not tie TPE to maintenance funding,

which forces units to expend considerable effort bringing their TPE to operational standards.

To address these issues, the 1st TSC worked with the Forces Command, the Army Reserve Command, and First Army to begin deploying units with all of their equipment. The 1st TSC further worked with the Army Materiel Command to begin a quarterly TPE review process that

This process is a way for the TSC to contribute to setting the theater and provides an example for TSCs in other combatant command AORs.

identifies TPE to be transferred to a table of distribution and allowances that can be tied to maintenance funding.

Munitions redistribution. The 1st TSC's process also contributed to the redistribution of munitions stocks within the theater. A large portion of theater munitions stocks were stored in the theater storage area (TSA). This stressed TSA safety requirements and caused an increase in customer wait times for munitions shipments from the TSA to the point of use.

Through the set-the-theater process, the 1st TSC identified and redistributed munitions from the TSA to ammunition supply points that were closer to the points of use and to strategic ports of debarkation. The 1st TSC also worked to develop storage expansion projects at specific ammunition supply points to account for the increased requirements.

These actions allowed the 1st TSC to reduce the munitions stocks held at the TSA and reduce the time required to transport munitions from storage locations to the points of need.

The 1st TSC's employment of a deliberate set-the-theater process has made significant improvements

to current and future sustainment operations across the Middle East. Although the 1st TSC designed this process to support the CENTCOM AOR specifically, it provides an example that other TSCs could consider for their own set-the-theater planning requirements.

By identifying sustainment requirements, assessing current capabilities and gaps, and planning operations

and actions to mitigate risk, the TSC executes set-the-theater operations and actions that contribute to setting favorable conditions for military operations in phase 0 and beyond.

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Maj. Gen. Mark Palzer, commanding general of the 79th Theater Sustainment Command, speaks to his troops on Sept. 17, 2016, during Exercise Lion Focus '16 in Vicenza, Italy. (Photo by Sgt. 1st Class Alexandra Hays)

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Setting the African Theater

By Maj. Gen. Mark Palzer and Maj. Joel M. Machak

Africa is a vast and fascinating continent with incredible potential for opportunities and challenges. To adequately understand the role of sustainment in setting this theater, it is important to first understand what setting a theater means, the conditions within the theater, and U.S. Army Africa's (USARAF's) approach to the doctrinal responsibility of setting a theater.

Setting a theater is by no means a task that any Army service component command or warfighting function can accomplish alone. It involves a joint, interagency, intergovernmental, and multinational approach that includes nongovernmental organizations, embassies, and warfighting functions other than sustainment. The sustainment inputs are critical to this effort, but alone they are insufficient.

According to Field Manual 3-94, Theater Army, Corps, and Division Operations, setting the theater refers to a broad range of actions necessary to employ land power before and during a crisis. These actions include base development, theater opening, reception, staging, onward movement, and integration, and other sustainment-related support.

In order to accomplish these sustainment functions in the U.S. Africa Command (AFRICOM), the Department of Defense has aligned the 79th Theater Sustainment Command (TSC) to USARAF.

Setting the African Theater

Setting the theater is nested within the AFRICOM theater campaign plan and the USARAF mission state-

ment. The USARAF commander recognized the complexity of setting the African theater, so the staff developed a conceptual framework that describes the stakeholders, prioritizes countries and regions, and provides a framework for assessment.

The five categories in this framework are access and partnerships, protection, mission command, intelligence, and sustainment. By doctrine, access and partnerships could have been divided among the other categories; however, they were deliberately kept separate to ensure they received adequate visibility given their importance.

Based on doctrine, orders, and command guidance, USARAF identified 166 key tasks necessary for setting the African theater. These tasks were grouped into requirements that correspond to doctrinal warfighting function elements. The result was clearly defined criteria that provide a common understanding among stakeholders about their responsibilities.

The Continent and the COCOM

Fifty three of Africa's 54 countries are within the AFRICOM area of responsibility. Africa is 3.5 times the size of the United States. Its geography ranges from desert to triple canopy tropical rainforests. The rainy and dry seasons in certain regions present additional challenges. The diverse conditions and terrain, coupled with poor transportation infrastructure, limit the composition and delivery methods of support packages.

Each country has its own set of customs clearance laws and regulations

that must be successfully navigated to ensure timely delivery of equipment and supplies. Many African countries have achieved independence within the past 40 years, which means that many laws and policies regarding cross-border imports and transportation are constantly changing.

The more than 1,500 languages and dialects that are spoken across the continent add further complexity to cross-border movement. Other complicating factors include mass migrations due to civil strife, religious conflicts, and food and water shortages. Combined, these factors make deploying and supporting units on the continent complex.

TSC Support to AFRICOM

Unlike most combatant commands (COCOMs), AFRICOM is relatively new. It was established in 2008. Other COCOMs have had decades to develop their areas of responsibility and, most importantly, to cultivate relationships with their partner nations. AFRICOM, by comparison, is not yet a decade old. It published its first theater campaign plan in 2016.

Additionally, AFRICOM is somewhat unique in that it still relies heavily on the U.S. European Command and the 21st TSC for basing, sustainment, and force projection.

Perhaps most significantly, until recently, AFRICOM has been the only COCOM without an assigned TSC. This meant that the USARAF staff had to replicate the functions of a TSC through memorandums of agreement with the U.S. European Command and the 21st TSC. This

The Department of Defense has tapped the 79th Theater Sustainment Command to become the senior logistics integrator for U.S. Africa Command.

required significant staff-to-staff coordination in order to ensure efforts were synchronized.

The 79th TSC is being aligned to USARAF to bring more capabilities and logistics support to the continent. In fiscal year 2017, the 13th Expeditionary Sustainment Command (ESC) was assigned to AFRICOM with operational control assigned to USARAF. The 13th ESC deployed a forward element to the USARAF headquarters in Vicenza, Italy, and to several nodes throughout Africa.

The ESC's forward presence laid the groundwork for the 79th TSC to assume these missions and bring additional capabilities to USARAF as the senior logistics integrator for AFRICOM. Integration efforts will provide improved logistics incorporation in the initial stages of operations and exercise planning.

Efforts and Initiatives

USARAF has established a broad range of logistics capabilities for setting the African theater. These capabilities include the West Africa Logistics Network (WALN), cooperative security locations (CSLs), acquisition and cross-servicing agreements (ACSAs), and the capabilities of partners in the Defense Logistics Agency, the Army Sustainment Command, the Logistics Civil Augmentation Program (LOGCAP), and regionally aligned forces (RAF).

The WALN. The WALN is an AFRICOM regional distribution concept consisting of a light logistics hub with associated spokes that support forces employed throughout West and Central Africa by air and surface modes. In support of the WALN, AFRICOM tasked USARAF to provide traffic management in West Africa and the Lake Chad Basin. Traffic management is primarily executed through contracts, such as African Surface Distribution Services, LOGCAP, and blanket purchase agreements. USARAF acts as AFRICOM's executive agent for common-user land transportation throughout the continent.

CSLs. CSLs are made up of host-

nation facilities and have few permanent U.S. personnel. They contain pre-positioned equipment and serve to enhance support contracts, blanket purchase agreements, security cooperation activities, and contingency access. These sites are intended to reduce the time and transportation assets required to deploy and sustain approximately 300 Soldiers for 30 days.

AFRICOM has a total of 12 CSLs throughout the continent, four of which are managed exclusively by USARAF. To improve command supply discipline at these locations, the Army Materiel Command is working with USARAF to expand theater property book capabilities. As the AFRICOM and USARAF training plans mature, USARAF intends to include the CSLs in training when possible.

In the future, the 79th TSC will monitor, inspect, and rotate the CSL stocks into training exercises. While CSLs are designed to enhance logistics capabilities in support of exercises and operations, their existence is possible because of the access and partnership efforts of the AFRICOM Security Cooperation Division.

ACSAs. ACSAs are negotiated bilaterally between U.S. forces and their allies or coalition partners. They allow U.S. forces to exchange the most common types of support including food, fuel, transportation, ammunition, and equipment. Whenever possible, USARAF executes ACSAs with partner nations. This reduces the U.S. footprint in Africa and has the additional benefits of building mutual trust and strengthening ties with partners.

In the past fiscal year, the value of services exchanged with partner nations was \$2.97 million. It is on track to surpass \$3 million this fiscal year. This investment seems small compared to other military endeavors, but it generates substantial returns in building partner capacity and cultivating relationships.

Sustainment partners. LOGCAP has the capacity to provide a wide range of support to Soldiers. USARAF currently leverages the capabilities of LOGCAP to provide

long-term solutions.

In addition to providing some materials handling equipment support, LOGCAP provides 24/7 facilities maintenance support to all CSLs. The Defense Logistics Agency assists USARAF by partnering with host-nation businesses to place fresh fruit and vegetable suppliers in strategic locations throughout Africa. This significantly reduces the transportation costs associated with sustaining Soldiers on the continent.

To reduce U.S. forces' dependence on bottled water and the associated transportation costs and waste, USARAF is developing bulk water solutions. These capabilities include well pumps, water purifiers, and water chillers.

Additionally, USARAF is working with the Army Materiel Command to tailor Army pre-positioned stocks in Africa to best support future missions. These efforts will ensure that deploying units can rapidly draw the equipment they need and will minimize lift requirements from the continental United States.

RAF. RAF units are vital to theater security cooperation and setting the African theater. RAF units are the U.S. face of any partnership effort on the continent. They support AFRICOM exercises and events that train host-nation militaries in logistics, intelligence, land navigation, first aid, and communications.

Planners must consider how to balance the employment of RAF units with RAF readiness requirements. Additionally, as RAF units rotate to support the AFRICOM mission, it is important that unity and momentum are maintained from one organization to the next.

The Way Ahead

In support of AFRICOM and USARAF initiatives, the 79th TSC will focus on filling the logistics capabilities shortfalls of partner nations to help develop solutions. As USARAF cultivates relationships with African partners, it must demonstrate and impress upon those partners the impor-

tance of incorporating logistics into the initial stages of any operation. To do this, USARAF must institutionalize and professionalize the logistics functions within its partners' security forces.

During the logistics plenary session at this year's African Land Forces Summit in Malawi, senior leaders from more than 35 African nations gathered to discuss how to improve logistics. The following methods were developed to accomplish this goal.

Shape the force. In conjunction with its partners, USARAF must assess the knowledge base and establish realistic and agreed-upon performance goals. It must empower noncommissioned officers and allow them to enforce standards and develop a list of standardized terms to facilitate accurate communication between partners.

Cross-train with partner nations. What is the best way to train our troops together? What cross-training method aligns with each nation's strategic plan and vision? Partner-nation units must train for the situations and conditions they will face during peacekeeping or other operations.

Create distribution management priorities. Partner nations must determine how to best use their forces. Recognizing that they cannot meet all transportation needs at all times, they must allocate forces in accordance with established priorities. Planning is essential when synchronizing logistics between depots and Soldiers in the field.

Institutionalize maintenance. When maintenance problems occur, distribution capability suffers. Operator-level preventive maintenance is critical, but partner nations also need the next higher level of maintenance support. Leaders should think about maintenance at all times. Inculcating a culture of readiness is paramount in this effort.

Ensure transparency and accountability. Logistics can be a noncontroversial platform and can be used to facilitate dialogue and build trust between partners. Public trust is also important. Taxpayers should feel confident that their money is being spent wisely.

Ensure interoperability. Commonality in logistics is critical, particularly when nations partner with one another for an operation. As partners modernize their forces, it is important that they do so with an eye toward commonality and interoperability.

All of these initiatives will help create an enduring presence for logistics and help foster much-needed institutions centered on logistics capabilities.

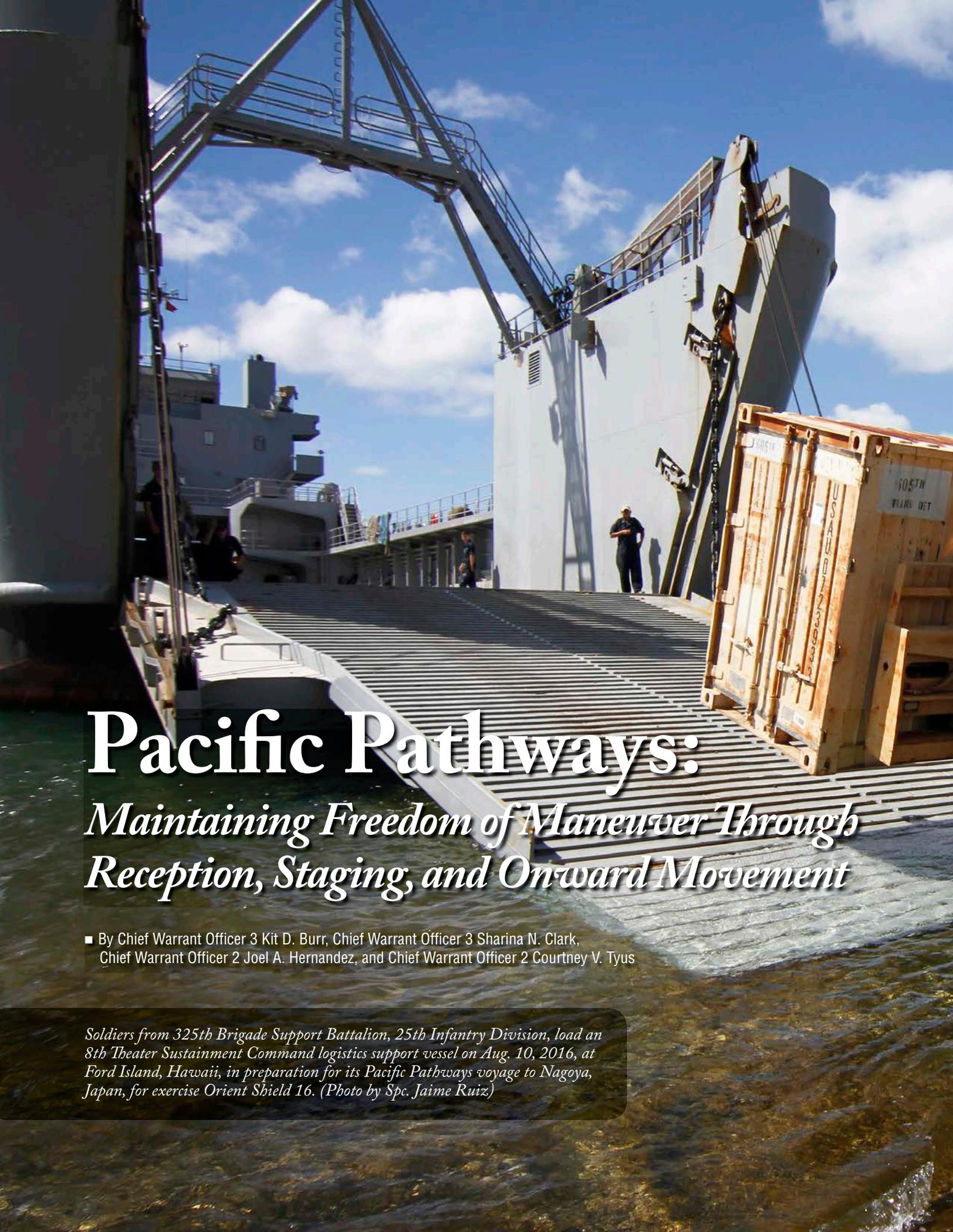
Setting the African theater involves more than the sustainment warfighting function. USARAF has made significant progress toward setting the African theater and with the addition of the 79th TSC will continue to shape this effort in concert with partner nations. Investing in these partnerships and building trust are the keys to success.

In his 1962 State of the Union address, President John F. Kennedy said, "The time to repair the roof is when the sun is shining." In other words, now is the time to build relationships, not during a crisis.

As its partners progress through this transformative period, USARAF's ongoing investments in Africa are in the nation's best interest and will pave the way for a bright and prosperous African future.

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Pacific Pathways:

Maintaining Freedom of Maneuver Through Reception, Staging, and Onward Movement

■ By Chief Warrant Officer 3 Kit D. Burr, Chief Warrant Officer 3 Sharina N. Clark, Chief Warrant Officer 2 Joel A. Hernandez, and Chief Warrant Officer 2 Courtney V. Tyus

Soldiers from 325th Brigade Support Battalion, 25th Infantry Division, load an 8th Theater Sustainment Command logistics support vessel on Aug. 10, 2016, at Ford Island, Hawaii, in preparation for its Pacific Pathways voyage to Nagoya, Japan, for exercise Orient Shield 16. (Photo by Spc. Jaime Ruiz)



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“U.S. Army Pacific (USARPAC) and its logisticians are involved in solving some of the most complex challenges in arguably the most dynamic environment in the world. These complex challenges include setting the theater (forces, footprints, and agreements), infrastructure improvement and alignment, petroleum distribution, and ammunition management across 36 nations and through dramatically varying climates.

One of the most critical functions in any potential military operation is the reception, staging, and onward movement of personnel, equipment, and supplies. Since 2014, the 8th Theater Sustainment Command along with its enterprise partners have been refining these critical operations through USARPAC’s Pacific Pathways.”

—Maj. Gen. Susan A. Davidson, 8th Theater Sustainment Command

Pacific Pathways is not a single event but, rather, a sequenced execution of multiple exercises at the Joint Chiefs of Staff, geographic combatant command, and Army service component command levels. The exercises are carried out through three expeditionary deployments. Each deployment links several exercises, resulting in unit deployments that are five to seven months long.

These exercises provide regional familiarization and continuous multinational engagement with allies and partner nations. They also provide the U.S. Pacific Command with a persistent land force presence west of the international dateline, without additional basing requirements.

Pacific Pathways contributes to the joint force by encouraging interoperability in reception, staging, and onward movement (RSO) operations and requiring planners to communicate, synchronize, leverage, and pool resources for efficiency.

A Challenging Region

The 8th Theater Sustainment Command (TSC) is tasked to synchronize and integrate U.S. regional

and multinational sustainment operations in the Pacific. Pacific Pathways deployments provide the TSC with opportunities to conduct challenging RSO operations in 36 nations.

The Pacific region presents logisticians with a complex and unique operational environment. Logisticians must work through 16 time zones, limited infrastructure, reduced access, cross-border security, extended lines of communication, low-capacity transportation networks, and language and interoperability challenges, all while operating in the most natural-disaster-prone area of the world.

In the dynamic geopolitical environment of USARPAC’s area of responsibility, the strategic complexities of executing RSO cannot be understated. Relationships in the Indo-Asia-Pacific region are varied and fluid, sometimes turning from warm to cold seemingly overnight.

For example, during a 2017 Pacific Pathways deployment, the 8th TSC was days away from uploading unit equipment destined for exercise Angkor Sentinel, an exercise the United States co-hosts with the Kingdom of Cambodia, when an announcement was made that Cambodia was postponing all combined military exercises

for 2017 and 2018.

Around the same time, the Republic of the Philippines announced a significant reduction in scope of Balikatan, its annual military exercises with the United States. Details of the reduction were not finalized until the U.S. Army had completed a large portion of the planned exercises of Pacific Pathways 17-1, including Cobra Gold in the Kingdom of Thailand and Foal Eagle in the Republic of Korea.

Each separate exercise of Pacific Pathways is planned with its own unique joint exercise life cycle. The 8th TSC uses the life cycle to coordinate the concept of support with participating units. Executing combined joint RSO for multiple exercises in multiple countries requires the 8th TSC to synchronize the exercise linkages that create the “pathway” across the region and to ensure unity of the sustainment efforts.

No two Pacific Pathways deployments are alike. Each requires a tailored mix of strategic lift, Army watercraft systems (AWSs), and strategic and operational concepts of sustainment. Pacific Pathways is an excellent way to practice expeditionary operations and to test the Department of Defense’s global infrastructure in lo-



A logistics support vessel from the 8th Theater Sustainment Command returns to Joint Base Pearl Harbor–Hickam, Hawaii, on Oct. 8, 2016, after a deployment in support of Pacific Pathways. (Photo by Staff Sgt. Michael Behlin)



Personnel from the Ocean Terminal Division, Fleet Logistics Center Pearl Harbor, Navy Supply Systems Command, load Army equipment and cargo onto Ocean Jazz, a commercial vessel, to support Pacific Pathways. (Photo by Shannon Haney)

cations that challenge both strategic planners and tactical operators.

Movements

There is nothing routine about RSO in the Pacific; U.S. Army forces cannot cross any land borders within the USARPAC area of responsibility, making every intratheater movement strategic. Pacific Pathways enables RSO planning and training at a level not frequently seen outside of a contingency operation.

The 8th TSC relies heavily on joint and contracted support to maintain visibility of sustainment requirements and infrastructure gaps in multiple countries during RSO operations. Several years of Pacific Pathways have exposed significant intratheater and intertheater move-

ment challenges that come from relying on airlift and sealift capabilities.

The theaterwide multinational engagements of Pacific Pathways highlight unique country operational requirements and the joint competition for scarce contracted resources.

A dedicated vessel provides a central point to build a Pacific Pathways movement. This strategy economizes the force structure needed to execute a rotation and eliminates duplicate port operations and transoceanic voyages throughout the deployment.

The strategy also provides the Army with the flexibility to reconfigure the deploying force for each successive engagement. The crew discharges only the equipment needed for each exercise, and unused gear remains onboard and ready for contingencies.

Using AWSs improves RSO planning and execution and benefits deploying forces. Logistics support vessel and landing craft utility (LCU) watercraft are essential components of RSO operations in Pacific Pathways. These watercraft facilitate the movement of tailored equipment packages among separate, overlapping, or simultaneous exercises that would otherwise require two or more strategic sealift assets.

Japan-based LCUs act as munitions supply ships for Pacific Pathways. They allow exercise ammunition to be drawn from the Republic of Korea or Japan. This strategy eases the burden on deploying units to draw, pack, and ship training ammunition from home station and accelerates RSO and redeployment for each exercise.

Strategic sealift no longer requires a separate ammunition port call.

Relationships

Intratheater and intertheater movements require a complex mix of strategic and tactical traffic management that balances host-nation processes with the multinational movement control functions of an allied force.

The success of an exercise in any country often depends on the relationships formed and experiences gained during previous deployments. Planning teams succeed or fail because of the last impression left with the host-nation military and the U.S. Embassy security cooperation teams.

Many key planning considerations, including the allocation and staging of vehicles and equipment, the location of convoy support centers, and convoy highway clearances require coordination and official approval from the host nation's movement control equivalent and civil and military authorities. Each successive annual Pacific Pathways deployment reaps the benefits of positive multinational engagements and lessons learned by the previous year's participants. These interactions strengthen regional familiarization and readiness.

These relationships are important for expediting the customs and immigration processes. For example, traveling to and from Australia requires the RSO process to begin at home station. Months before loading the vessel for deployment, units must prepare for strict agricultural inspections that ensure compliance with seaport of embarkation standards during upload.

Conducting a stateside preclearance promotes an accelerated clearance process upon arrival in Australia and keeps RSO and exercise timelines on track. Frustrated cargo can cause key equipment to never clear the port of debarkation, which affects readiness and training.

Pacific Tensions and Variables

The U.S. Pacific Command operates in a complex region with a polit-

ical environment as varied, dynamic, and challenging as its terrain. The region is home to four billion people, 24 of the world's 36 megacities, seven of the world's 10 largest armies, and

The U.S. military sustainment community must respond quickly to overcome challenges and find rapid solutions when the political situation in a country changes and the RSO plan is disrupted.

five of seven mutual defense treaties that often require logistics solutions that are multinational and multi-lateral. U.S. forces are charged with helping to balance and stabilize the relationships that allies maintain with other regional powers.

Sudden changes to U.S. exercise plans and timelines can occur as a result of nations seeking to demonstrate their sovereign powers, national elections, mourning periods after the death of a national leader, or changes in foreign policy. The U.S. military sustainment community must respond quickly to overcome challenges and find rapid solutions when the political situation in a country changes and the RSO plan is disrupted.

If countries deny U.S. aircraft and vessel diplomatic clearances during Pacific Pathways deployments, the 8th TSC must find ways to move people and equipment into and out of the host country for the exercise.

The tyranny of distance is alive and well for the U.S. Army in the Pacific, where the operational environment stretches over 9,000 miles and land border crossings are not available for U.S. forces. The combined and joint RSO process applied throughout Pacific Pathways provides exposure and experience for the Army to train and test expeditionary logistics during operations in an increasingly complex, resource-competitive, and dy-

namic security environment.

RSO inherent to Pacific Pathways increases expeditionary proficiency, ensures readiness, and improves access. These operations foster and

build the multinational relationships that enhance freedom of maneuver for USARPAC.

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Reception and Integration of an ABCT Through Theater Intermediate Staging Bases

■ By Lt. Col. Brian J. Ketz, Capt. Christopher L. Miles, 1st Lt. Evan T. Kowalski, and Command Sgt. Maj. Johnathon A. Uribe-Huitron



The 44th Expeditionary Signal Battalion provided command post node capabilities at Drawkso Pomorskie Training Area, Poland, on Jan. 18, 2017. These capabilities allowed the incoming armored brigade combat team personnel to communicate immediately upon arrival. (Photo by 1st Lt. Kiefer Ragay)



The 16th Special Troops Battalion used seven intermediate staging bases to receive armored brigade combat team units and speedily prepare them for Atlantic Resolve.

As a part of the U.S. strategy to bolster forces and deter a Russian threat, the 3rd Armored Brigade Combat team, 4th Infantry Division (ID), (3-4 ABCT) from Fort Carson, Colorado, deployed its forces to the Atlantic Resolve joint operations area in January 2017. This deployment entailed moving the ABCT's 3,500 personnel and 2,600 pieces of equipment, including 261 combat platforms, to seven locations across Poland. Once all equipment and personnel were accounted for and prepared for combat operations, the 3-4 ABCT initiated a second onward movement into Eastern Europe to establish a presence in Estonia and Romania.

The reception, staging, onward movement, and integration (RSOI) process took 14 days from the time the first of three ships arrived at the port of Bremerhaven, Germany, to the time the ABCT was combat ready.

Conceptually, the force flow of personnel and equipment was simple: use air, sea, and rail assets to reach seven forward locations. In actuality, much more occurred behind the scenes to make RSOI possible. This was one of the largest logistics deployment efforts since Operations Iraqi and Enduring Freedom.

Mission Command

The 3-4 ABCT could not deploy its forces to Europe alone. The 21st Theater Sustainment Command (TSC) facilitated the strategic logistics coordination for the RSOI.

The 21st TSC tasked the 16th Sustainment Brigade with mission command of all logistics integration requirements in the Atlantic Resolve area of operations (AO). The 16th Sustainment Brigade supported the 598th Transportation Brigade, Military Surface Deployment Distribution Command (SDDC), for reception and staging and the 4th ID Sustainment Brigade for onward movement.

The overall mission command structure for RSOI focused on relationships between supporting and supported units. This structure greatly influenced

the TSC's ability to support the complex 3-4 ABCT RSOI mission, which consisted of facilitating theater opening, distribution, and sustainment.

The 16th Sustainment Brigade developed a concept of sustainment to enable the 3-4 ABCT to project forces, enhance speed of assembly, and build combat power. This concept of sustainment consisted of developing a transportation and distribution plan, establishing life support, and developing intermediate staging bases (ISBs) for integrating incoming personnel and equipment.

During the execution phase, the 16th Special Troops Battalion (STB) took mission command of all ISBs and ensured the concept of sustainment was fully executed as designed. This streamlined the RSOI process, making the deployment of a fully enabled, combat-ready ABCT possible in 14 days.

Projecting the Force

Movement is chronologically the first, yet possibly the most complicated, aspect of developing a concept of sustainment. For RSOI, 3-4 ABCT used air, sea, rail, and road assets to transport Soldiers and equipment.

These assets entered into the U.S. Army Europe AO through theater gateways or ports of debarkation (PODs) to move to their final destinations. POD coordination was not easy because U.S. forces could not receive dedicated support at PODs because of competition with commercial vendors. The 598th Transportation Brigade was the main effort during this critical phase. The 16th Sustainment Brigade assigned its movement control teams (MCTs) to the 4th ID Sustainment Brigade, which was in charge of port support activity operations at port and rail locations.

The 16th STB assisted with the transportation of 3-4 ABCT personnel and equipment by creating a common operational picture that enabled freedom of maneuver.

To successfully project 3-4



A contract worker drives a forklift to deliver water to Soldiers at Zagan, Poland, on Jan. 18, 2017. (Photo by 1st Lt. Gregory Hacker)

ABCT into the AO, the 16th Sustainment Brigade coordinated the use of sea PODs, rail PODs, aerial PODs, and road networks. This coordination depended on leveraging strategic-level assets, commercial contracts, and host-nation support while using MCTs and personnel accountability teams (PATs) to monitor progress and ensure streamlined execution.

Enhancing Speed of Assembly

The 16th STB coordinated movements through the 39th Transportation Battalion and monitored the MCTs during mission execution. For equipment tracking, the 16th Sustainment Brigade assigned MCTs to tactical nodes across the AO in concert with the PAT teams. These teams increased speed of assembly and the brigade's ability to meet combat-ready standards by providing closure reports for equipment arriving by commercial truck, rail, and air.

The MCTs used several methods to accomplish this reporting. The pri-

mary method was to manually track equipment by bumper number and transportation control number when it arrived in Poland. The MCTs also used technology to monitor the arrival of convoys and trains.

The teams applied radio-frequency identification (RFID) tags to the equipment at home station and monitored it using U.S. Army Europe's network of RFID interrogators. The teams also used commercially procured mobile trackers to augment the RFID interrogators. Using these assets, MCTs provided real-time updates of current locations and projected arrival times that allowed leaders to make necessary preparations.

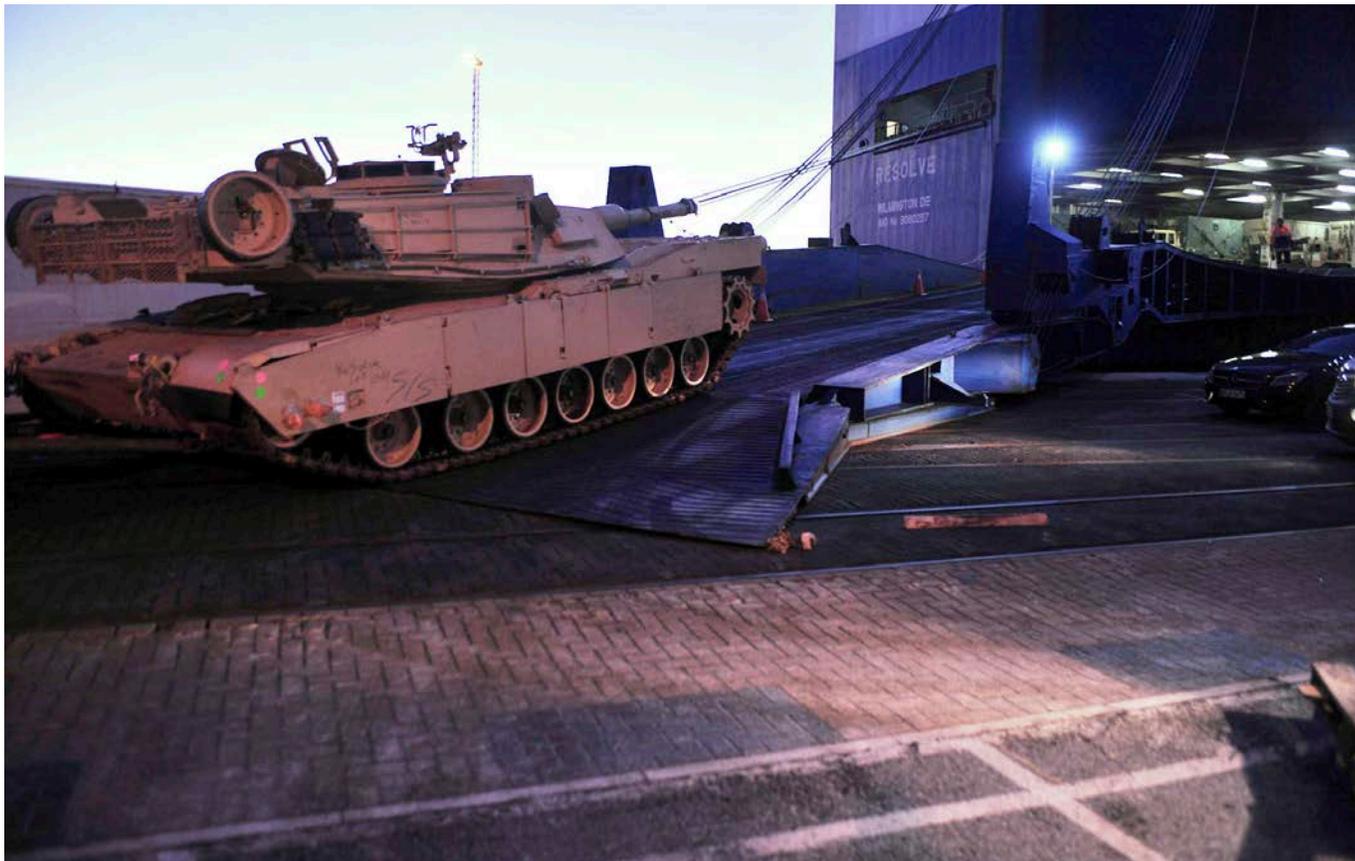
The 16th STB also provided the 4th ID Sustainment Brigade with PATs to monitor and report the reception of Soldiers and equipment using automated Army systems such as the Tactical Personnel System (TPS) and the Deployed Theater Accountability System (DTAS).

Integrating with the 21st TSC's human resources sustainment center

for PAT reporting was vital for capturing personnel visibility. Using TPS and DTAS, the STB and higher echelons gained real-time updates and accurate information that increased leaders' visibility and enhanced freedom of maneuver.

The 569th Human Resources Company launched theater gateway PATs to Polish civilian airports (employed as aerial PODs) to receive 3-4 ABCT personnel. The theater gateway PATs used the Joint Operation Planning and Execution System to track incoming flights and TPS and DTAS to account for personnel arriving in theater. This validated unit accountability, streamlined the personnel flow, and drastically increased the 3-4 ABCT's speed of assembly.

Managing the arrival and discharge of equipment provided accurate reporting of equipment and personnel movement to the 4th ID mission command element (MCE) for force tracking. Knowing the status and location of their personnel and equip-



Vehicles from 3rd Armored Brigade Combat Team, 4th Infantry Division, leave the American roll-on roll-off carrier Resolve at Bremerhaven, Germany, on Jan. 6, 2017. The unit's vehicles and equipment were shipped to intermediate staging bases in Poland before deploying across Europe for use in training with partner nations. (Photo by Sgt. 1st Class Jacob A. McDonald)

ment during the deployment and onward movement improved training timelines, range operations, and the speed at which deploying forces became combat-ready units.

Sustaining the Force

Sustaining the deploying unit as it progresses through the theater RSOI process maximizes speed of assembly and allows it to focus on building combat power. When the 3-4 ABCT arrived in Poland, the 16th STB, in conjunction with the 4th ID MCE, ensured that sustainment and life support for an entire ABCT was ready upon arrival.

By leveraging organic assets, host-nation support, and contracted solutions, the 16th STB maintained oversight and ensured the sustainment of the 3-4 ABCT. The STB equipped each ISB with a command team responsible for es-

tablishing the life support requirements needed to seamlessly receive all 3-4 ABCT personnel into theater. Since operations were enduring and forward in Poland, most requirements included host-nation or contracted support.

The ISB commanders (company commanders from the 16th Sustainment Brigade) worked directly with the host nation to facilitate support through existing acquisition and cross-servicing agreements captured in a statement of requirements.

The STB and MCE resourced most contracted requirements through the Logistics Civil Augmentation Program (LOGCAP). In all, the 16th Sustainment Brigade and the 3-4 ABCT established and executed a total of 14 statements of requirements, nine LOGCAP contracts, more than 800 one-time

movement contracts, and 10 commercial contracts.

The 16th STB S-4 section directly managed ISB life support requirements and facilitated communication between various channels including the 4th ID MCE, LOGCAP, the host nation, the 16th Sustainment Brigade, the Installation Management Command-Europe, and the Army and Air Force Exchange Service (the Exchange) to ensure they fully supported the ISBs.

The S-4 developed a “quality of life” tracker that captured all life support requirements to include billeting, dining facilities, gyms, mail rooms, American Forces Network access, Wi-Fi, and Exchange support. Every night the 16th STB hosted a battalion update brief where key players discussed the requirements and issues related to life support and then determined solu-

tions. Because of the complexity of requirements and the number of organizations providing resources, this forum was crucial to ensuring real-time updates, shared understanding, and necessary resources.

Building Combat Power

The 16th STB stood up, resourced, and managed seven ISBs across western Poland to serve as strategic platforms that enabled the 3-4 ABCT to reach full combat strength and achieve their 14-day speed of assembly goal. These ISBs were part of the theater RSOI process and therefore “theater infrastructure” where deploying units linked up and integrated Soldiers, equipment, and mission command systems before moving to a tactical assembly area.

The STB tasked company command teams to guide integration. Each command team was accompanied by 10 to 18 Soldiers and non-commissioned officers. This number varied depending on the size of the ISB and the support required.

Having command teams who were already familiar with the European theater in charge of each site was essential to providing critical guidance that drastically increased the readiness of each unit entering the ISB.

Placing command teams at the ISBs also provided critical support and assistance for the inbound commanders. Instead of focusing on life support and reception tasks, inbound commanders were able to concentrate on reaching full combat power and preparing their units for onward movement.

The STB assigned each ISB a contracting officer representative to coordinate and oversee contracted and host-nation support. The contracting officer representatives worked with subcontractors, a LOGCAP-provided administrative contracting officer, and host-nation representatives to meet contracted requirements and to make adjustments when operational needs changed.

The ISBs included several addi-

tional key sustainment functions to achieve a combat-ready posture. The 44th Expeditionary Signal Battalion provided essential communication support and assets that enabled 3-4 ABCT leaders and staff to “plug and play” immediately upon arrival. These assets were operationally controlled by ISB commanders.

Additionally, the 421st Multifunctional Medical Battalion granted ISB command teams operational control of Role I medical personnel and equipment. A noncommissioned officer was embedded with each ISB to manage and coordinate all class I (subsistence) requirements and to monitor food service operations.

Supplies. Likely, the most underappreciated, yet extremely vital portion of the ISB mission was coordinating and managing all classes of supply. Food, water, fuel, blocking and bracing materials, storage, ammunition, materials handling equipment (MHE), and transportation assets were on hand and ready for 3-4 ABCT units as they arrived. Significant planning was required to ensure these assets arrived at all seven ISBs when staff was available to receive them.

Inbound personnel. The PATs provided the ISB command team with the number of incoming personnel and their estimated arrival times to ensure the ISB was ready to receive each group.

It was imperative that the STB staff and planners coordinated with the 3-4 ABCT in the months before the mission in order to identify exactly how many Soldiers would be located at each ISB and when their flights would arrive.

When the 3-4 ABCT Soldiers arrived, many of the Polish barracks at the various ISBs were undergoing renovations. Command teams had to accommodate for the limited billeting space to meet the demand of incoming troops.

Incoming equipment. The ISB commanders managed the influx of equipment from air, rail, and line-haul assets through close co-

ordination with the MCT and the inland cargo transfer company for its MHE. The ISBs closely tracked all equipment to ensure that the necessary MHE and support personnel were immediately available to download and stage inbound equipment.

The 16th STB demonstrated the importance of sustainment operations in enabling a combat force to deploy its forces at an unprecedented speed. While the rapid deployment of the 3-4 ABCT is impressive, the behind the scenes meticulous planning and robust logistics support is perhaps a more impressive takeaway. This event demonstrated that sustainment is the gateway to mission, operational, and ultimately strategic success.

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A Soldier from the 1st Battalion, 66th Armor Regiment, 3rd Armored Brigade Combat Team, 4th Infantry Division, guides an M2A3 Bradley fighting vehicle to a maintenance area on July 1, 2017, at the Cincu Joint Multinational Training Center in Cincu, Romania. (Photo by Staff Sgt. Ange Desinor)



Establishing Europe's Army Pre-positioned Stocks

■ By Col. Rodney H. Honeycutt, Richard A. Bezold, and Robin T. Dothager

When the United States decided to position a force in Europe for credible deterrence, it had to bolster its capabilities. The Army set in motion several actions, including extending regionally aligned forces (RAF) rotations to nine months, having RAF operate “heel to toe,” and pre-positioning combat, combat support, and sustainment equipment in Europe.

On Dec. 2, 2015, the deputy secretary of defense directed the management action group for the Army to initiate planning to support the U.S. European Command's expanding mission requirements for credible deterrence. His guidance was that European Activity Set (EAS) equipment would transition to be part of the Army Pre-positioned Stock 2 (APS-2) once the 1st Armored Brigade Combat Team (ABCT), 3rd Infantry Division (ID), finished us-

ing it for its RAF rotation. Future rotational forces would deploy with their unit-owned equipment from the continental United States.

The Department of the Army (DA) execution order establishing APS-2 unit requirements was published in May 2016. The order directed timelines for establishing expanded APS-2 capabilities.

The Army Materiel Command (AMC) began planning the establishment of APS-2 enablers including an ABCT, a division headquarters, a fires brigade, and a sustainment brigade. To meet DA timelines, AMC assessed the current situation and developed a plan to meet requirements given the limited equipment, personnel, and facilities in Europe.

Planning the Transition

At the time the order was published, the 1st ABCT, 3rd ID, had

Atlantic Resolve is changing the way the Army stores and distributes pre-positioned equipment.

drawn the EAS equipment from the 405th Army Field Support Brigade (AFSB) and was operating in Eastern Europe and Germany. The ABCT equipment set was established, but none of the equipment for the division headquarters, fires brigade, or ABCT enablers was on hand.

Tentative sites for equipment positioning had been identified, but none of the sites were controlled by the U.S. European Command. Additionally, none of the sites had host-nation agreements or a trained workforce.

U.S. Army Europe (USAREUR) worked with host nations to obtain sites in Belgium, Germany, and the Netherlands. USAREUR also developed a timeline for EAS equipment turn-in so that the ABCT equipment could become an APS-2 unit set. The timeline included retaining combat platforms in Eastern Europe until January 2017. This was when the 3rd ABCT, 4th ID, would deploy to assume the Atlantic Resolve mission.

Establishing AFSBn–Benelux

The Army Sustainment Command (ASC) directed the 405th AFSB to establish Army Field Support Battalion (AFSBn)–Benelux to provide mission command over APS-2 operations located north of the Alps. This required the 405th AFSB to establish operations at three APS-2 sites, develop each site’s table of distribution and allowances, execute hiring plans, and reset EAS equipment.

At the same time, the 405th AFSB had to operate six Eastern Europe sites used to store equipment until the 4th ID’s ABCT arrived and then close these sites in addition to EAS sites in Grafenwoehr and Mannheim, Germany.

The 405th AFSB used a team of teams approach to acquire facilities, synchronize the arrival of 15,000 pieces of globally redistributed equipment, and hire an 800-person workforce consisting of DA civilians,

contractors, host-nation ministry of defenses employees, and Soldiers in 15 just months. The AFSB staff worked closely with ASC and AMC to develop the concept for the AFSBn.

The staff also worked with USAREUR to establish host-nation agreements and with the Installation Management Command for facilities issues. USAREUR was able to obtain facilities in Belgium and the Netherlands that had previously been used to store pre-positioned materiel configured to unit sets. USAREUR also obtained a former United Kingdom base in Germany with facilities capable of providing indoor storage for large amounts of equipment.

Host-nation technical agreements specified the type of workforce that would be acceptable to the host nation, which ranged from contractors to host-nation ministry of defense personnel. Until the hiring concept plan was approved, USAREUR leveraged Army Reserve Sustainment Command Soldiers deployed in a “temporary change of station” status and temporary-duty personnel from AMC.

Enabling Speed

In December 2016, USAREUR’s commander spoke at the ribbon-cutting ceremony for the APS-2 facility in Eyselshoven, Netherlands. In his remarks, he highlighted how APS-2 equipment enables the speed of recognition (understanding that a threat exists), the speed of decision (reacting to the threat), and the speed of assembly (issuing the APS-2 equipment to a designated unit).

Enabling speed of assembly is driving the transition of APS-2 facilities into power projection platforms and forcing changes to APS doctrine. AMC’s goal is to deliver APS equipment to the tactical point of need. In conjunction with ASC, the 405th AFSB is training the workforce to quickly outload equipment via rail, road, air, or barge to an assembly area designated by USAREUR.

In the assembly area, an equip-



A train loaded with M2A3 Bradley fighting vehicles and M1A2 Abrams tanks belonging to the 1st Battalion, 68th Armor Regiment, 3rd Armored Brigade Combat Team, 4th Infantry Division, arrives in Tapa, Estonia, on Feb. 6, 2017, in support of Atlantic Resolve. (Photo by Sgt. Lauren Harrah)

ment configuration handling area (ECHA) team will receive, stage, and execute equipment transfers. To set conditions for ECHA operations in an assembly area, the AFSB maintains an early-entry module capability. The early-entry module executes the reception, staging, and onward movement of a contracted or local-national ECHA team. Deploying an ECHA team eliminates the need for the inbound ABCT to draw equipment from an APS-2 facility.

Changing APS Procedures

APS procedures are changing because of the modifications to APS-2. Maintaining the equipment in a “configured for combat” posture is altering how AMC stores the equipment. To facilitate outload operations, the AFSB is choosing effect over efficiency by storing the equipment in unit sets. These unit sets take less time to outload than the equipment sets that were used previously.

Another adjustment includes maintaining platforms with command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) packages. The de-

cision to maintain C4ISR and other equipment forward is pending DA approval.

Keeping the C4ISR configured for combat changes how supplies are stored and maintained. Normally APS equipment is on a four-year maintenance cycle. Maintaining C4ISR packages on APS platforms requires increased maintenance and changes to the security requirements for local nationals and contractors who store and maintain the equipment.

A continental United States-based Army is more likely to use APS equipment in support of contingency operations and for maintaining credible deterrence. In addition to maintaining APS equipment, the AFSB and two APS AFSBns in Europe are becoming masters of strategic communications, outload operations, and freedom of movement as they operate power projection platforms that support warfighter readiness.

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lor’s degree in criminal justice from the University of South Carolina, a master’s degree in logistics management from the Florida Institute of Technology, and a master’s degree in strategic studies from the U.S. Army War College. He is a graduate of the Quartermaster Advanced Course and the Command and General Staff College.

Richard A. Bezold is the deputy to the commander of the 405th AFSB. He served 29 years in the Army and has served as the support operations director for the 403rd AFSB and the 405th AFSB. He holds a bachelor’s degree in business administration from Thomas More College, a master’s degree in business management from Saint Mary’s College, and a master’s degree in strategic studies from the Army War College. He is a graduate of the Ordnance Officer Basic and Advanced Courses and the Command and General Staff College.

Robin T. Dothager is the director of operations for the 405th AFSB. He is a former Army noncommissioned officer who held occupational specialties in ground vehicle maintenance and supply.



“The MTW is the centerpiece of our leader development program; combat readiness is our number one priority.”

—Maj. Gen. Duane A. Gamble,
21st Theater Sustainment Command

Chief Warrant Officer Aaron Smith, 21st Theater Sustainment Command G-4, presents an overview of the command's maintenance terrain walk at the 30th Medical Brigade Senior Leader Forum at Ramstein Air Base, Germany, on Dec. 1, 2015. (Photo by Capt. Jeku Arce)



The 21st TSC's Maintenance Terrain Walk Program

■ By Chief Warrant Officer 3 Aaron T. Smith

About a year ago, the 21st Theater Sustainment Command (TSC) commanding general (CG) asked me to establish a maintenance terrain walk (MTW) program to develop leaders and increase readiness in the TSC. He provided me with his book of previous MTWs to use as a guide.

The CG's request seemed easy enough. I am the senior logistics maintenance warrant officer for the 21st TSC G-4 maintenance branch. I came up through the ranks in armored brigade combat teams and have been a part of and witness to numerous terrain walk events as a Soldier, noncommissioned officer (NCO), and warrant officer. But I quickly realized that this task was not cut and dry. I was out of my element a bit.

As I began my backward planning, I kept getting hung up on how to tailor a program for such a distinct command. The 21st TSC spans multiple countries with many

different mission-essential task lists and equipment. I wanted to make a program diverse enough to accomplish the CG's leader development and readiness goals without having to reinvent the wheel every time we conducted an MTW.

The 21st TSC is a multicomponent force consisting of a sustainment brigade, military police brigade, medical brigade, engineer units, a theater civilian support center, and an Army Reserve mission support command with a civil affairs brigade and transportation teams. The TSC can have Soldiers in as many as 50 countries at a time, so readiness is of the utmost importance and the top priority.

This MTW program could never be generic or vague. It needed to be the centerpiece of our leader development and readiness objectives.

Effecting Readiness

In order to develop the MTW, we had to get out and observe first-

If designed and implemented properly, a maintenance terrain walk can drastically increase long-term readiness.

hand the unique challenges that our junior leaders were working through. We needed to talk with Soldiers and leaders to evaluate the gaps. Change, progress, and readiness could happen only if we were equipped with information.

Standard battle rhythm events, such as brigade maintenance meetings, sustainment readiness reviews, and theater maintenance working groups, are effective for tracking readiness and prioritizing efforts. However, they are not adequate for training leaders at echelon.

An MTW, if designed and implemented properly, will take leaders out from behind their desks and force them to review their programs, talk to their Soldiers, make sound decisions, and implement the changes needed for long-term readiness.

The commander should be at the forefront of the maintenance program and enable the NCOs, warrant officers, and junior leaders to improve readiness. Over the years, commanders have backed off of influencing the maintenance program and relied solely on maintenance officers, warrant officers, and motor sergeants to determine the future of readiness for the unit.

But Army Regulation 750-1, Army Materiel Maintenance Policy, does not state that the maintenance program belongs to the warrant officer or motor sergeant; it says that it belongs to the commander.

The MTW is a commander's tool for developing leaders and achieving warfighter readiness. Embracing maintenance readiness as a priority, empowering NCOs and junior leaders to train Soldiers, and resourcing readiness at all echelons are all components of the MTW.

A Different MTW

The MTW is not directly discussed in any regulation. It is not spelled out in any one specific manual or technical bulletin. But having the freedom to design the MTW does not negate the responsibility to follow policies or regulations; it

simply means that MTW developers need to do their homework to make sure they capture all regulations governing maintenance.

The 21st TSC's program has all of the features of traditional MTWs. It contains training and evaluation outlines, policy memos, task orders, example slide decks, and statistical data.

What differentiates the 21st TSC's MTW from past programs is that it aligns with the unit's organizational inspection program and command maintenance discipline program (CMDP). The 21st TSC uses the organizational inspection program as a foundation to develop training goals and program modifications that outline long-term readiness goals and how the command can reach them.

The 21st TSC uses the MTW as a training progress review within 120 and 180 days after a battalion commander takes command. This review, conducted by the CG, gives the battalion commander the opportunity to gain insight and guidance from the CG that is specific to his or her command.

This invaluable face-to-face review opens the door for candid conversations and provides the CG's perspective of the overall readiness goals for the 21st TSC. The review encourages the battalion commander to make the changes required to align his or her efforts with the overall readiness goals of the TSC.

Equally important, it gives the battalion's command sergeant major a framework to shape the unit's training efforts in support of the commander's readiness objectives.

The 21st TSC uses the CMDP as a conduit for training. Because the MTW is an "at echelon" training event, incorporating the CMDP paves the way for battalion and company commanders to learn the basics of maintenance management. It also empowers senior enlisted trainers and enforces readiness down to the lowest level.

The 21st TSC wants to ensure that commanding officers and lead-

ers know the standards and how to enforce them. Therefore, the CG hosts the battalion MTW, the brigade commander hosts the company MTW, and the battalion commander hosts the platoon MTW.

All of the MTWs follow the same principle of focused training and take a deep look at how to improve programs and meet long-term readiness goals that are outlined in annual training guidance, are synchronized during quarterly training briefings, and ultimately are nested in the unit's training management processes.

Readiness Training at Echelon

Another differentiating feature of our program is how deeply the 21st TSC G-4 staff is involved. The MTW is training at echelon for the TSC G-4 and brigade and battalion S-4s. Each event enables the G-4 to learn, grow, and better understand the TSC's diverse unit structure.

The G-4 begins by shaping the MTW for the battalion commanders. Most battalion commanders view the MTW as an inspection by the CG. We curb this perception immediately with an in-depth commander's in-brief that outlines goals, initiatives, and lessons learned.

The G-4 also presents the battalion command teams with the state of readiness within the command. Through statistical systems analysis, the G-4 provides a weekly report on current readiness drivers for the battalion.

The equipment status for the maintenance plan may show only four overdue services. This gives a false reality; the average unit has 1,200 pieces of equipment that do not have maintenance plans in the system.

So, the 21st TSC G-4 built an equipment reconciliation database to inform units of which pieces of equipment lack maintenance plans and are potentially overdue for maintenance because of system oversights or data transfer faults.

Because Soldiers are still learning the Global Combat Support

System-Army (GCSS-Army), the TSC had to develop training to coincide with the MTW to make sure that the efforts of the maintainers, operators, and leaders were properly tracked and managed in the new system. This learning process increases the ability of the equipment records and parts specialists to properly update GCSS-Army.

Enabling Senior Trainers

Nesting the unit's approach to the MTW with the Army's 8-Step Training Model and preparing the CG are extremely important to the overall success of the MTW. After finalizing the battalion's MTW plan and training the trainers through in-progress reviews and rehearsals, the G-4 sends a progress report to the CG.

The CG must be aware of where the unit's readiness started and where it stands on the day of the terrain walk in order for battalion commanders to obtain the full training value of the MTW. Instead of simply briefing statistics, battalion commanders brief the CG about the program and how the CG's influence has improved long-term readiness.

The G-4 develops a 5-by-7-inch question-and-answer booklet for the CG that specifically represents the unit's challenges and accomplishments. It provides the CG with a quick reference to check on learning. The booklet contains all slides and statistical graphs to ensure the CG has all available information at his disposal.

Finally, a full pre-briefing is conducted a few days prior to the MTW to go over the data collected from the training. The G-4 assists and advises the CG on the remaining shortcomings or potential areas where he could apply the most influence to achieve the training objective.

This enables the CG to conduct the eighth step of the training model with each battalion commander, evaluate the training, and give guidance as required.

The Readiness Impact

The 21st TSC's MTW program was designed to encourage innovation and a holistic review of maintenance functions at all levels within the command. It has reduced shortcomings by more than 70 percent in each unit that has conducted an MTW.

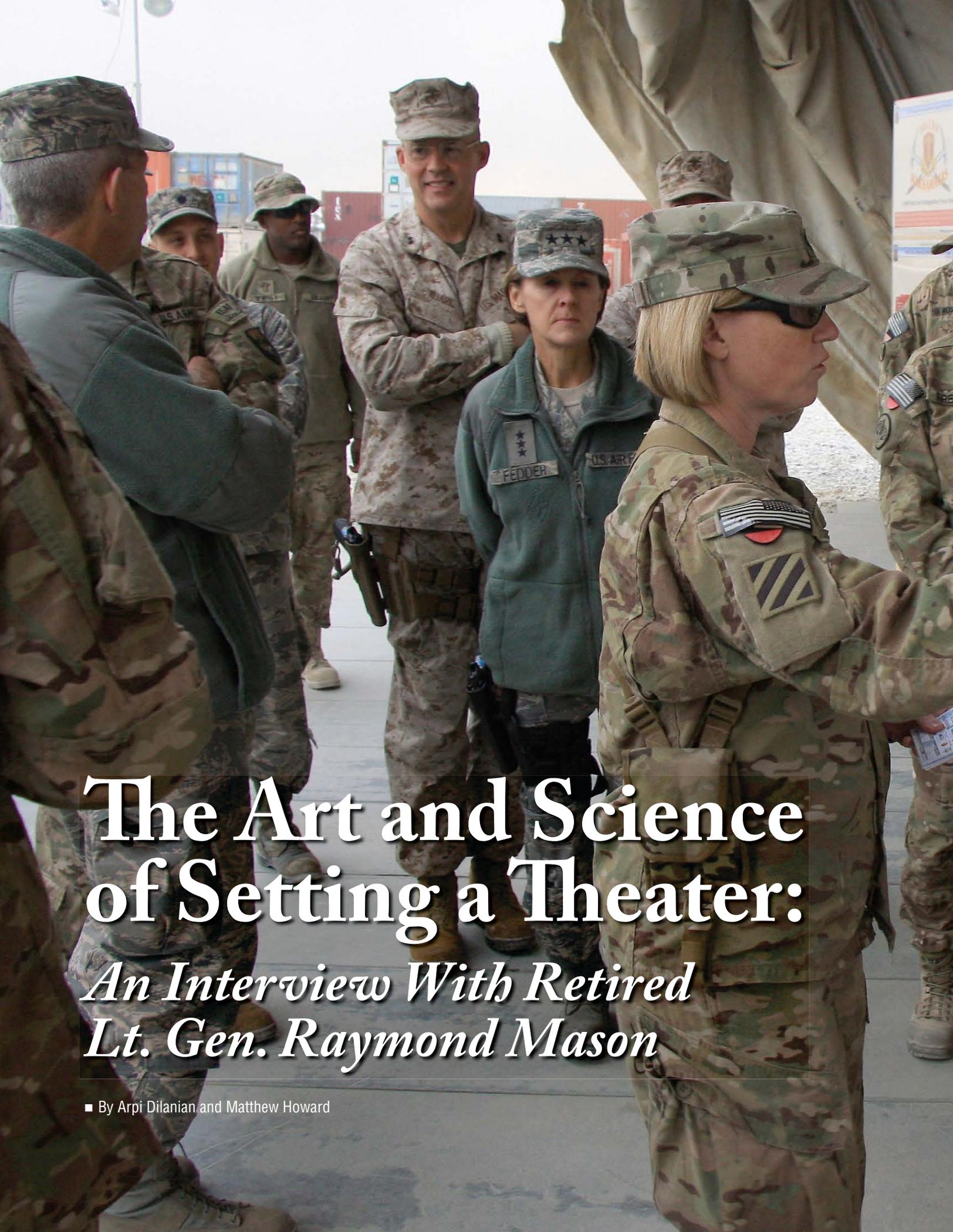
The TSC has seen a sharp decrease in overdue services and in Army Oil Analysis Program and test, measurement, and diagnostic equipment delinquencies. Productivity with GCSS-Army has also improved. In units that have conducted an MTW, the number of GCSS-Army help desk tickets have declined to only a few per month.

Sustainment readiness review ratings have improved, and overall command emphasis on maintenance functions are overwhelmingly apparent in those units. Equipment status reports are shrinking, and policies and programs designed around time and cost savings initiatives have sprung up across the command.

The 21st TSC has seen an increase in cross-talk between commanders and maintenance leaders. They are sharing ideas and initiatives that otherwise would not have been shared.

An effective MTW program will help transform a unit into a well-oiled machine. The 21st TSC's MTW program was created and managed by the Soldiers, but it is owned by the commander. That ownership strengthens the bonds across the ranks and leads the way to a more ready, capable, and lethal sustainment force.

Chief Warrant Officer 3 Aaron T. Smith is an automotive maintenance warrant officer and the senior logistics maintenance warrant officer for the 21st TSC G-4 maintenance branch in Kaiserslautern, Germany. He is pursuing a bachelor's degree in logistics management and is a graduate of the Warrant Officer Advanced Course.



The Art and Science of Setting a Theater:

*An Interview With Retired
Lt. Gen. Raymond Mason*

■ By Arpi Dilanian and Matthew Howard



Lt. Col. Michelle Letcher, commander of the 18th Combat Sustainment Support Battalion, discusses disposition of materiel with Lt. Gen. Raymond Mason, the Army G-4, at the Bagram Airfield retrosort yard on Nov. 16, 2012. (Photo by 1st Lt. Henry Chan)

When it comes to setting a theater, this retired sustainer with 35 years of experience suggests, “Do not reinvent the wheel.”

As a former Army G-4 and a commander in both the Pacific and Central Commands, retired Lt. Gen. Raymond Mason led Soldiers during peace and war. Today, he is pursuing a passion, leading the Army Emergency Relief team that provides financial assistance to active and retired Soldiers and their families. It’s a job that caps a 35-year career of taking care of Soldiers. In this interview, he shares his experiences and best practices for setting a theater.

There are many considerations for setting a theater. Can you walk us through some of the most important concerns?

First, you have to execute a detailed military decisionmaking process and figure out the scope of the mission and what it will require to accomplish it. Some basic questions to ask upfront are, “Is this going to be long term? Is it a full-up combat operation or is it train and assist? Is it a contingency operation? What are the time horizons for planning and execution? Who’s in charge of the mission and what authorities do they have from the combatant commander? What is the operational commander’s intent for the level of quality of life?”

You also have to think about a battle rhythm and processes you will need to track and monitor progress, with clearly defined metrics. There are lots of Army organizations that have done the theater setting mission already, so do not reinvent the wheel. Go out and look at how the U.S. Central Command did it, or how the U.S. Pacific Command is doing it, and take the best of breed.

The other thing you have to do is fully leverage the national providers, specifically the Defense Logistics Agency and the U.S. Transportation Command. Put it all on the table. Don’t leave anything out. Make sure you’re tapping all available capabilities. It’s often said, but so true in this case, “You don’t have to own the asset to leverage it.”

You then have some operational-level questions to address: Are units going to bring their own equipment, or are they going to draw from an equipment set already in the theater? Where and how would you establish that theater set of equipment? The answers to these questions will drive a lot of your requirements and resources for transportation, property accountability, and maintenance.

Most importantly, you have to build flexibility into your plan. Many times these operations begin as a contingency missions, but end up becoming longer-term operations. You need to have enough branches and sequels in your plan to deal with the unexpected.

How has force reception and onward movement changed over time, and how do they need to evolve to meet future challenges?

Leaders of my generation can relate to the REFORGER [Return of Forces to Germany] exercise we did every year. It was very deliberate with the goal of deploying 10 divisions in 10 days to Western Europe. The U.S. European Command and U.S. Army Europe had this down to a science; it is a totally repeatable process with all the transportation, pre-positioned sets, and support units in place and fully ready to execute the [European] General Defense Plan.

Obviously the world has changed drastically since then. Think about operations during the past 16 years in Iraq, Afghanistan, and the Horn of Africa. They were contingency operations early on; then they became permanent rotational missions. There was really no rear area or communication zone, in the way that we used to think of them during the Cold War. Those conditions drove a different solution set.

Additionally, the battlespace has become continuous, 360 degrees; we must have force protection throughout the battlespace. The Army also went through the modular redesign in the early 2000s, so some theater-level logistics units were deactivated,



Retired Lt. Gen. Raymond Mason (Photo by Matthew Howard)

while others were stood-up. So we had to rethink who was going to execute what.

Today, we have the very capable theater sustainment commands (TSCs), which I think are key to setting the theater and to overall strategic sustainment support. Expeditionary sustainment commands (ESCs) are central for the operational to tactical logistics missions. My philosophy is that the TSC is there to unweight the ESC, so the ESC can focus down to and into the battlespace while the TSC handles the theater logistics mission, specifically the interface with the national providers and other capabilities such as joint reception, staging, onward movement, and integration (JRSOI), pre-positioned stocks, the Logistics Civil Augmentation Program, and contingency contracting.

Planning contracted support up front is key to managing the literally hundreds of contracts and tens of thousands contractors that are

required for a theater-level mission. You've got to have a specific plan for the requirements that you develop, you must write very detailed and measurable statements of work, and you must have really good contracting officers and contracting officer representatives.

In my opinion, we have not focused on picking the very best people to be contracting officer representatives, and in the past, we did not train them well. This has to change.

Also, in terms of requirements, a best practice of establishing a general officer-level contract requirements determination board was put in place in the later years of Operation Iraqi Freedom and Operation Enduring Freedom and paid huge dividends in terms of effectiveness and efficiency.

Additionally, in Iraq and Afghanistan there was constantly new equipment being fielded. We always tried to stay a step ahead of the enemy with new capabilities that our magnificent industrial base was able to produce. The

influx of new equipment, particularly in wartime, has always existed, but managing this fielding piece has reached a highly complex level. It is paramount to have folks that understand and manage this process to reduce the burden on the operational units while getting them the latest equipment.

What were your biggest concerns in setting the theater during your service in the Pacific?

I commanded the 19th ESC in Korea and then moved to the 8th TSC in Hawaii. One of the biggest challenges in the Pacific theater is the tyranny of distance. You're dealing with thousands of miles and multiple time zones. Backward planning and thinking through how time and distance affect your battlespace and mission are key.

The other big challenge is dealing with multiple headquarters and Army, joint, and coalition commands. In my experience the best

way to organize for that situation is a fairly simplistic approach, but it is very powerful; it's called "support to supporting relationships."

Gen. B.B. Bell, who was the [United Nations Command] Combined Forces Command and U.S. Forces Korea commander when I served in Korea, perfected this relationship. He understood that as the war plan progressed, priorities constantly changed. He would designate a supported commander for a particular phase, and all other commanders were in supporting roles. He did not worry about lines on a chart and command bureaucracy. This concept did not solve all challenges, but it was very effective for aligning priorities and focusing resources in the Pacific theater.

The concept of "you don't have to own it to leverage it" is very powerful. Take a unit that is not assigned to you but has a capability that you need. Through committed partnership development and the power of personality, a leader can establish a working relationship with that unit, and the two units can share capabilities. This truly achieves a combat multiplier effect.

A major challenge in the Pacific theater right now is that there are only two sustainment brigades in zone. Day-to-day, you don't have the logistics force structure to train and execute missions. The unit rotational program [regionally aligned forces] in Korea and throughout U.S. Pacific Command is critical to setting the theater. It allows you to bring units in to train, which simulates what would be needed for JRSOI and sustainment in any kind of operation or contingency.

The other piece that is unique in Korea is the noncombatant evacuation mission. Not only must Eighth Army rehearse moving units and forces into Korea, they must also simultaneously train to move hundreds of thousands of U.S. and allied civilians out of the theater.

You've got people and equipment moving in both directions, and the logistics community is usually tasked with synchronizing and executing

these missions. In my opinion, few missions are more challenging than the simultaneous noncombatant evacuation operation and JRSOI mission in Korea; that's why we must train on them all the time. Every preparatory action that can be taken during phase 0 of setting the theater will be invaluable.

How important is the Army's role in supporting other services when setting a theater?

The Army's support of other services is absolutely key to setting the theater. You have to plan up front to support the joint force and coalition partners. The Army is responsible for a multitude of joint sustainment needs that provide capabilities, services, and requirements to the other services. These includes ground transportation, ammunition, and fuel. We have to build these capabilities into the force structure or at a minimum, contract for them.

The Army's support of other services requirements must be recognized and accounted for as part of the Total Army Analysis. My concern is that the requirement for the Army's support of other services missions frequently gets assumed away, with some Army- and theater-level planners believing that the current logistics force structure can simply handle it in stride. Nothing could be further from the truth.

Is host-nation support critical?

Depending on where you are in the world, certainly in Korea, host-nation support (HNS) is a force multiplier. There are lots of capabilities HNS can and must provide, especially early on, because the Army cannot get there fast enough to meet the early-on requirements.

Having relationships with the local community and political and commercial leaders is paramount. You've got the science side of it, which is understanding the requirements for HNS. You can put contingency con-

tracts in place that you can use when needed. But there also is an art to HNS. It's the relationships that you develop. You want to be able to pick up the phone, call the local businessman, and say, "I need 300 buses right now at this location."

Based on how you nurtured the relationship during phase 0, he knows you, you know him, you have built trust over time, and he is there to support you.

You can put in place contingency contracts, relationships, and memorandums of agreement with the host nation, and then you must exercise it often. However, you have to be careful that HNS is not overly promised or relied upon. My experience is that in some planning documents there is an assumption that HNS will be there with a capability. However, either we did not develop sufficient relationships with the local military or commercial entities or we did not properly exercise the HNS agreement on an annual basis.

HNS agreements must be living documents that are tested and stressed often. I witnessed situations where the HNS agreement stated a local company would provide 500 buses at a given time. However, we would test it by using just five buses. That is not stressing the system. I fully recognize this is not a simple issue. I'm just of the opinion that we should not overly rely on HNS, especially in operation plan development.

With so many sustainment forces in the Army Reserve and National Guard, how can the total Army better train for setting the theater?

The active duty, reserve, and National Guard truly must be one seamless force. I think we achieved that in the past 16 years of combat. I know as many Army Reserve and National Guard logistics general officers as I know active duty general officers.

However, my concern is that as we deploy less, which is a good thing, opportunities to train together to keep the relationships going also lessen.

So we have to ask, “How do we keep those active-reserve touch points that we developed intact and thriving?”

If there is an active duty installation with reserve units located nearby, they should train together. When reservists do their weekend drills, maybe there is some training synergy there. We need to be innovative and exploit opportunities for training and relationships everywhere.

After Vietnam, the Department of Defense made some decisions about how much force structure would be put in the Army Reserve and the National Guard. The strategy was that if the decision is to go to war, you’re going to have to commit the Army Reserve and National Guard because a large percentage of capability is resident there, especially in the logistics area. By default, this commits every little town in the nation; therefore, the nation is committed. I think that’s the right approach. We should not go to war without the nation and our citizens buying in.

So the active and reserve component design generally makes sense; I’m pretty comfortable with the mix. I just think there are some particular capabilities that are out of balance where we have assumed too much risk. We’ve got to adjust a little, especially for those first 30, 60, and 90 days of combat while the mobilization process takes place.

I know the Army G-4, the Army Reserve, and the National Guard are working on this. We don’t need every reserve component unit to be fully ready on D-Day, but we need some specific capabilities ready very early, including fuel delivery, ammunition, long-haul transportation and theater logistics command and control.

What concepts can help set the theater in places where there are no staging bases or where we are denied access?

I can see many scenarios in the future where the Army will not have the luxury of a place like Kuwait to build up for six months before moving across the line of departure. Any po-

tential foe of the United States is going to do its best to deny us the ability to build up our forces in sanctuary.

So at the strategic departmental level, the Army needs to build force packages. If there is a particular kind of mission and you need a certain capability, then here is force package A. If you need another capability, then here is force package B. If you’re concerned about force structure size or force management levels or political implications, here’s force package C.

We must build multiple packages that are both efficient and effective; then when you need them, you have a menu to select from based on the mission.

Time-phased force deployment data, while still a good planning tool, is not how we are going to deploy in the 21st century. We must provide our political leaders with flexible, tailorable force options. I will offer a word of caution here. The other extreme to the time-phased force deployment data is the use of hundreds of requests for forces. That is micromanagement and cumbersome, in my opinion.

Another thing the Army needs to do is expand its partnership with the Navy for seabasing. During the Haiti mission, the 101st Airborne Division put its helicopters on an aircraft carrier. We did not need a lot of fighter jets in Haiti, but we needed a whole bunch of helicopters to deliver troops and supplies; that type of joint synergy must be expanded.

Here are a few other thoughts that can help us overcome the anti-access challenge and lower logistics demand. Increase investment in the sealift emergency deployment readiness exercise program. Expand investment in and use of Army watercraft. Build pre-configured combat resupply loads outside of the battlespace that are called forward as needed. Expand investment in airdrop and aerial delivery systems. Work with the U.S. Transportation Command to deploy forces in a ready-to-fight mode. Increase investment in operational energy technology. Develop a truly rapid, deployable tactical fuel delivery system, and expand the use of pre-positioned stocks.

What advice would you provide sustainment leaders and Soldiers to improve their readiness to support setting the theater?

In the Pentagon, leaders need to build resources into the budget that can assist with setting the theater. They need to justify and fight for the money. The challenge is that setting the theater does not usually have an immediate return on the investment, so it is difficult for that requirement to compete in the budget process.

At the operational and tactical levels, it starts with the basics: understanding your equipment and load plans, who is in charge at the unit level, and what information technology systems the movement officer needs to be able to use. Units must have a well thought out and tested deployment standard operating procedure. Tactical leaders must focus on their local deployment processes and train, train, train.

There’s no doubt in my mind that there is an art and science to properly setting a theater. We have a significant amount of successful experience with setting the theater. If we fully leverage that experience, and continue to build the requirements into planning, get those requirements funded and test them, we will be in good shape.

The past 16 years of combat have proven that U.S. military leaders can accomplish any mission anywhere. With the superb quality of our current generation of officers and non-commissioned officers, I have no doubt that legacy of excellence will continue into the future.

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Maj. Gen. Les Carroll, the commander of the 377th Theater Sustainment Command, Col. Lillard Evans, 595th Transportation Brigade commander, and members of the 840th Transportation Battalion watch as equipment is loaded onto the USNS Mendonca at the Port of Shuaiba, Kuwait, on March 3, 2017. (Photo by Lt. Col. Cinnie Mullins)

Changing the Culture to Set the Theater

The Transportation Corps needs a change in culture to set the theater for future operations and maintain readiness.

■ By Col. Lillard D. Evans

While the Army has been focused on stability operations during the past 10 years, the Transportation Corps' tactical-, operational-, and strategic-level skills have atrophied. Additionally, capabilities that were readily available in the active component have been repositioned to the reserve component through Army force realignments. These capabilities now require activation or mobilization in order to perform critical deployment and redeployment tasks at ports of

embarkation and debarkation. This stresses the Transportation Corps' ability to maintain readiness.

Stability operations shifted the Transportation Corps' focus from deployment operations to distribution operations. This resulted in a loss of critical force movement and projection skills. To maintain readiness, the Transportation Corps needs a culture change that will allow it to effectively set the theater for future operations.

The 595th Transportation Brigade is changing its culture by develop-

ing adaptive leaders who get results through active engagement, training efficient and effective expeditionary port operations teams, and preparing organizations to have mission command over elements designed to provide maneuver commanders with options.

The Focus on Distribution

The focus on distribution operations has led the transportation community to distribute cargo with an administrative mindset. This mindset

was effective while the Army was operating in permissive environments. However, one needs to consider that the Army will likely set the theater in nonpermissive environments in the future.

In nonpermissive environments, the transportation community must focus on its core functions of deployment and redeployment. Providing deployment and redeployment expertise to maneuver commanders at the tactical, operational, and strategic levels remains a core function of transportation experts.

Changing the Culture

As a prerequisite to setting the theater for future operations, the 595th Transportation Brigade's focus is on leader development. In particular, the brigade is developing junior transportation officers and training leadership skills for planning and coordinating expeditionary port operations.

As part of leader development, the military decisionmaking process (MDMP) and troop leading procedures (TLPs) focus battalion and company leaders on planning and executing operations. Learning these systematic processes is critical to developing leadership skills.

The MDMP and TLPs help identify areas of accountability and responsibility. They help leaders ask critical questions that eliminate assumptions and unnecessary risks. The processes also force leaders to be actively engaged in the entire operation and assume ownership at the appropriate levels.

In the past, leaders who were accustomed to managing and distributing cargo were reluctant to direct or communicate with experienced carriers, contractors, and civilians. Essentially, the distribution system was on autopilot with very little leader engagement. In stable and permissive environments, this approach has limited success; however, it presents problems when employing independent teams in nonpermissive environments.

Being actively engaged in all aspects of operations and leading Soldiers to

be accountable and responsible will drive change in the transportation community. It also will allow leaders to train and develop the teams needed for future operations. Using the MDMP and TLPs will help leaders develop effective operations to ensure success in all environments.

Measurable Success

The measure of success for the 595th Transportation Brigade in setting the theater for future operations is the ability to provide trained expeditionary port operating teams to the combatant commander. However, the Army's force realignment has moved most deployment capabilities to the reserve component. Reserve organizations are essential and must maintain the same level of proficiency as their active duty counterparts.

In training active and reserve personnel, the 595th Transportation Brigade's emphasis is on operations and leadership, as opposed to technical transportation training. The decision to focus training on operations, particularly port operations, and leadership demonstrates the importance of accountability and responsibility for Soldiers, units, and teams. Operations and leadership training empowers leaders with the confidence to deliver combat forces at the speed of war, and it changes the culture to focus on being responsive to maneuver commanders.

A culture focused on operations and leadership training has merit for the future. This culture change will contribute to guiding the transportation community back to its core missions of deploying and redeploying combat forces, essentially delivering readiness to warfighting organizations.

Mission Command

Because force realignments moved distribution capabilities to the reserve component, mission command is essential to setting the theater for future operations. The 595th Transportation Brigade has two subordinate battalions charged with mission command

of active and reserve component port operations teams. The 840th Transportation Battalion operates in the northern Persian Gulf, while the 831st Transportation Battalion operates in the southern Persian Gulf.

To set the theater for future operations, both battalions will receive critical assets and capabilities to execute their core missions of deploying and redeploying combat forces. These assets will come from both the active and reserve components.

To ensure consistency in training and shared understanding, the brigade and subordinate battalions will contribute to the training, certification, and validation of all port operations teams. By contributing to this process, battalions are able to cultivate relationships with leaders and Soldiers. These relationships are essential to fostering the culture change needed to set the theater for future operations.

The transportation community needs a culture change that emphasizes an operational approach to assigned missions and leadership at the individual level, TLPs at the company level, and the MDMP at the battalion level. A culture change will assist commanders in setting the theater and refocus the transportation community on its core missions of deploying and redeploying forces rapidly.

A change in culture will cultivate confidence, trust, and credibility in the transportation community to address unforeseen challenges, ultimately providing warfighting commanders with readiness at the point of need.

Col. Lillard D. Evans is the commander of the 595th Transportation Brigade. He holds a bachelor's degree in civil engineering from South Carolina State University, a master's degree in civil engineering from the University of Alabama at Birmingham, and a master's degree from the Marine Corps War College. He is a graduate of the Transportation Basic Course, Combined Logistics Officers Advanced Course, and Army Command and General Staff College.



Maj. Gen. Duane A. Gamble, commanding general of the 21st Theater Sustainment Command, speaks to 1st Human Resources Sustainment Center Soldiers about the importance of having two strong teams for U.S. Army Central and U.S. Army Europe during the unit's 2016 deployment in support of U.S. Army Central.

Expeditionary Human Resources Sustainment: From Theater Committed to Theater Expeditionary

■ By Col. Thomas Seifert and Lt. Col. Marcos Suarez-Morales

The Army is operating in a resource-constrained environment and has to make some difficult force management decisions. Sometimes this means deploying a theater asset to another important area of operations. This was the case for the 1st Human Resources Sustainment Center (HRSC), 21st Theater Sustainment Command (TSC), when it deployed from Europe to

support U.S. Army Central (ARCENT) in early 2016.

The 1st HRSC was already committed to U.S. Army Europe for Atlantic Resolve when it received orders to deploy its teams and capabilities to support Operation Inherent Resolve. Almost simultaneously, it received additional short-term missions to deploy postal teams to Turkey and Cameroon to support

U.S. Army Africa. To be called upon to support three different theaters of operation at once was rare for the 1st HRSC.

Deploying the 1st HRSC from Germany created a gap for units operating in Europe and a dilemma for the 21st TSC. Because the 21st TSC sustains regionally aligned forces operating from the Baltics to the Black Sea region, it could not completely

relieve the 1st HRSC of its mission in Europe.

To meet the requirements of all three theaters, the HRSC had to be task-organized and divided into two separate elements. One element remained in Germany to continue supporting the European theater and U.S. Army Africa contingencies. The second element became an expeditionary HRSC for the ARCENT area of responsibility. Fortunately, the HRSC's readiness had never been higher, with 96 percent of its personnel deployable.

An Expeditionary Force Structure

The 1st TSC operational command post and the 451st Expeditionary Sustainment Command (ESC) provide the decisive logistics that underpins the success of coalition forces in Afghanistan, Iraq, and Syria. The 451st ESC's daily support operations are critical to building partner capacity. In March 2016, the HRSC joined the 451st ESC and immediately started synchronizing human resources (HR) sustainment for ARCENT.

To fit into a hybrid TSC-ESC design, the HRSC brought the essential HR teams and capabilities that would contribute to a leaner, more expeditionary sustainment structure. These capabilities included commodity managers for theater-level casualty management, personnel accountability, and postal support operations.

People and Mail

People and mail are two of the most important commodities managed by the 1st TSC operational command post. Every week, the TSC distributes more than 381,000 pounds of mail to approximately 76,000 customers; this is an average of five pounds per customer per week.

Each day, several hundred people transit through ARCENT's area of responsibility. Each arrival into the theater is accounted for by the Army's HR enterprise. Personnel transactions trigger the pay events to start

or stop entitlements.

Every week the TSC processes an average of 15 casualty reports for mostly non-hostile incidents and minor injuries. The few seriously injured casualties require patient tracking, follow-up reports, and potentially next-of-kin notification.

People and mail are constant. Although the volume has significantly decreased over the past decade, the average weekly volume is still im-

During each operational phase, the HRSC has specific tasks to accomplish for the sustainment commander.

pressive. There is no room for complacency as the TSC, ESC, and HRSC deal with this steady volume and the serious logistics challenges of moving mail and people around the battlespace.

An Expeditionary Role

Historically, an expeditionary HR organization has been important for large sustainment operations. During Operations Desert Shield and Desert Storm, the Army employed modified table of organization and equipment organizations, such as theater personnel commands (PERSCOMs) and corps personnel groups. During major campaigns, theater PERSCOMs and corps personnel groups were commanded by brigadier generals and colonels, respectively.

When the Army reorganized in the 1990s and 2000s, the PERSCOMs were inactivated and the deployable HR sustainment functions critical to the warfighter were made part of the TSC force structure. In Europe, the 1st PERSCOM was inactivated entirely, and the 1st HRSC was established as a directorate under the 21st TSC.

Since 2006, the 1st HRSC has deployed from Europe to support Operations Iraqi Freedom, Enduring

Freedom, New Dawn, and Inherent Resolve.

The HRSC works closely with the TSC-ESC support operations (SPO) staff to support theater opening, theater distribution, and theater sustainment. The HRSC director is best described as the HR SPO who manages theater postal services, casualty support and assistance, and the deployed theater personnel accountability database. Each of these tasks is

critical to supporting the warfighter.

During each operational phase, the HRSC has specific tasks to accomplish for the sustainment commander. During theater opening, the HRSC supports the joint reception, staging, onward movement, and integration of units by enabling personnel accountability at the point of entry.

During theater distribution and theater sustainment, the HRSC works with the SPO team to distribute mail and tracks the repatriation of casualty remains. The HRSC also supports the force management of the Army's HR companies, postal platoons, mail movement terminals, casualty liaison teams, and theater gateway personnel accountability teams.

Partnerships

The 1st HRSC is one of five theater HRSCs in the Army force structure. The other theater HRSCs are:

- The 8th HRSC in Hawaii.
- The 14th HRSC at Fort Bragg, North Carolina.
- The 3rd HRSC (Army Reserve) in Birmingham, Alabama.
- The 310th HRSC (National Guard) at Fort Jackson, South Carolina.

The five theater HRSCs work and

train together during mission rehearsals. They shape doctrinal concepts, standardize collective training, and share best practices. All of these units have previous expeditionary experience and can expect to play a role in future operations.

The HRSC must always contribute to the TSC-ESC SPO's concept for sustainment. The 1st HRSC was well-prepared for this important partnership from working with the SPO in Europe as part of the 21st TSC.

The 1st HRSC also invested in readiness and relationships with key partners. Before departing Kaiserslautern, Germany, the HRSC built rapport with all of the Army HR partners and program managers for each of the critical HR functional areas. These included the Human Resources Command,

the Military Postal Service Agency, and the Casualty and Memorial Affairs Operations Center. Building strong relationships with these organizations was critical for mission accomplishment.

Synergy and Opportunity

From its command post in Qatar, the 1st HRSC shared information with two important partners: the 18th Financial Management Support Center and the 3rd Medical Command (Deployment Support). By working together, a synergy emerged among the HR, financial management, and medical communities during Operation Inherent Resolve.

Taking care of HR involved more than just the theater HRSC and HR line units. The theater finance team managed the combat zone entitle-

ments processes that occurred after deployed personnel records were verified by the HRSC and personnel accountability teams. In similar fashion, the theater medical team shared helpful information to facilitate the tracking of casualties who received patient care at medical treatment facilities.

In the future, there will be tremendous opportunities for the Army sustainment community to employ HRSC teams in the best places to create value, unity of effort, and simplicity for sustainment operations.

As the Army adapts to a cost-conscious force structure and a fresh approach to operations, there will be opportunities for expeditionary HR functions to be further embedded and aligned within the greater sustainment framework. For example, mail movement and distribution functions are just like other commodities that the SPO manages; mail has a priority for movement with a required delivery date, like any class of supply.

The Army should also consider aligning and embedding HRSC casualty management and assistance within patient administration and patient care functions. These are best accomplished in the Army medical arena.

Ultimately, the HRSC remains a vital organization to provide the critical HR sustainment for enduring operations. It has been an enabler for the expeditionary sustainment of deployed units, Soldiers, civilians, and contractors.

Col. Thomas Seifert is the director of the 1st HRSC, 21st TSC, in Kaiserslautern.

Lt. Col. Marcos Suarez-Morales is the deputy director of the 1st HRSC. He holds a master's degree in HR management from Webster University. He is a graduate of the Command and General Staff College, the Adjutant General Captain's Career Course, and the HR Plans and Operations Course.



Soldiers of the 1st Human Resources Sustainment Center stand during the arrival of the official party during the unit's transfer of authority ceremony at Camp As Sayliyah, Qatar, on Dec. 6, 2016. (Photo by Sgt. 1st Class Naurys Marte)



Thomas Little, an end-use monitoring program manager, confirms the serial number on a damaged missile before its disposal.

End-Use Monitoring Is the Key to Success in Foreign Military Sales

Ensuring items are used appropriately by the intended recipients is an important part of making sure foreign military sales work as intended.

■ By Thomas D. Little

The United States engages with many nations around the world through security assistance programs and missions. The largest program is foreign military sales (FMS). FMS allows allied nations to work with the U.S. government to obtain defense articles, services, and training from stocks, other internal resources, and U.S. industry.

The Arms Export Control Act (AECA) requires the establishment of an end-use monitoring (EUM) program for the inventory management control and accountability of all arms sales and transfers under FMS. The AECA provides the end-use standards that the receiving nation must agree to when it signs an FMS letter of acceptance.

U.S. export laws authorize the transfer of defense articles and services through FMS only if the receiving nation agrees to the following conditions:

- The defense articles and services must be used only for the purposes for which they were provided.
- The defense articles and services

must not be transferred to a third nation or party without the knowledge and consent of the United States.

- The defense articles and services must receive the same degree of protection and physical security that the United States would provide the items.
- The nation must, upon official request, permit the United States to observe and verify compliance with the transfer agreements that the nation has signed.

Golden Sentry

To fulfill the AECA mandate for EUM, the Department of Defense

established the Golden Sentry program. Golden Sentry ensures the security of U.S. technology and the U.S. industrial base by requiring nations that receive defense items through FMS to comply with U.S. security standards.

Once items are delivered to a nation, Golden Sentry ensures that the country is providing sufficient security for the items. It also ensures that any transfers of items to other nations meet U.S. standards.

Golden Sentry program responsibilities are found in the Security Assistance Management Manual. Chapter 8 explains how the EUM program operates. The program oper-

ates on the “trust but verify” concept, but it is the inventory management of FMS items through EUM that ultimately provides the oversight and security of U.S. military items purchased and stored by foreign nations.

Security cooperation offices (SCOs) around the world coordinate EUM with partner nations by monitoring and reporting potential misuse or illegal transfers of defense articles and services that originated from the United States.

The SCO personnel who conduct routine EUM inspections in conjunction with their other security assistance duties are responsible for post-delivery monitoring and Golden Sentry program management.

There are two levels of monitoring in the Golden Sentry Program: routine EUM and enhanced EUM (EEUM).

Routine EUM. The Department of Defense has developed a “watch list” of routine EUM items that SCO personnel observe in the performance of their daily duties. Normally, advisers will casually observe operations to ensure that the items are accounted for and used properly.

SCO personnel assist in observing routine EUM items and submit quarterly reports that record their observations in support of an EUM compliance plan. These reports are used to show that casual routine EUM is being done, accountability is being maintained, and no violations are occurring.

SCO personnel are also responsible for reporting any potential violation, misuse, or illegal transfer of FMS items. If a possible violation is reported, the SCO chief conducts an informal investigation and forwards his findings to the Defense Security Cooperation Agency (DSCA) with recommendations for further action. Violations are serious and could result in the delay or cancellation of future FMS sales to a nation.

EEUM. The AECA requires annual verification by serial number of designated defense items that incorporate sensitive technology and are



Smoke rises from the controlled detonation of a missile during a disposal operation.

vulnerable to diversion or other misuse. This prevents the loss of technology and possible reverse engineering by a foreign nation. The SCO personnel travel throughout the country to military installations to conduct annual inventory inspections of EEUM items by serial number.

During the annual inventory inspection, the SCO personnel also conduct physical security and key control checks of storage sites to ensure compliance with U.S. standards. All containers with EEUM items are opened for inspection.

Once an EEUM item's serial number is visually confirmed, the storage container is closed and secured with a Golden Sentry seal or lock. The seal or lock is used to confirm that the storage container has not been opened or tampered with since the last inspection.

If the seal or lock is still in place during the next inspection, the container does not have to be opened for a visual check of the serial number. If the seal or lock is missing or there are signs that it has been tampered with, it is invalid and the storage container must be opened to confirm the serial number.

The seals and locks are inventory management tools used to increase the efficiency of the EEUM inspections. If a nation needs to use or repair the EEUM item, they are allowed to break the seal or lock to access the storage container.

The option of using the Golden Sentry seal or lock is left up to the inspector. The lock is the most secure method because the only way to break the lock is to cut it, which is a clear sign of tampering.

However, not all storage containers are designed to accommodate the Golden Sentry lock. Typically several Golden Sentry locks and seals are used per container to ensure the container is completely sealed and cannot be partly opened to access the munitions inside.

DSCA's Role in EUM

The DSCA, which manages FMS,

established the Security Cooperation Information Portal (SCIP) online to assist SCOs in conducting post-delivery monitoring. The SCIP provides a centralized and secure information storage site for all EUM data. The EUM part of the SCIP serves as a repository of all EUM data to include inventory, final disposition, and EUM-related historical information.

DSCA also conducts compliance assessment visits (CAVs) typically every two years to assess partner nations' compliance with the Golden Sentry program and provide recommendations for improvement.

DSCA conducts CAV inspections to assess the EUM compliance program of the SCO and the host nation, to review routine EUM procedures, and to review EEUM procedures by visiting storage facilities, conducting security checks, and conducting equipment inventories throughout all of the country's sites.

While DSCA has the statutory right to inspect a nation's EEUM items at any time, a diplomatic approach that includes advance notice has proven to be the best inspection method. Nations are normally given at least six months' notice to prepare for a CAV inspection.

The Blue Lantern Program

The Department of State has a similar program to Golden Sentry called the Blue Lantern EUM program. Created in 1990, Blue Lantern ensures compliance of direct commercial sales of defense articles, defense services, and related export data. Blue Lantern conducts pre-license, pre-shipment, post-license, and post-shipment checks of defense articles and services transferred through direct commercial sales.

The political-military (POL-MIL) office at each U.S. Embassy is responsible for the Blue Lantern program. The POL-MIL office employees conduct checks requested by the Department of State's Directorate of Defense Trade Controls.

The checks verify the destination

and specific end use and end users of commercial defense exports and transfers. These checks verify the credentials of proposed foreign consignees and end users and confirm the legitimacy of proposed transactions. The checks also provide reasonable assurance that the recipient is complying with the use, transfers, and security requirements imposed by the U.S. government.

The Golden Sentry program has specific items that require annual inspections. By contrast, the Blue Lantern program specifically targets items that pose potential risks. SCO personnel routinely assist U.S. Embassy POL-MIL personnel with their Blue Lantern checks. This help is critical since SCO personnel have an established relationship with a nation's armed forces and are able to facilitate access to all military bases and warehouses throughout the country.

The Military Assistance Program

Before FMS and the Golden Sentry program, the United States provided military equipment to allied nations through the Military Assistance Program (MAP). The program transferred military equipment to allied nations between 1952 and 1990. The equipment was given to the nations at no cost, but the title of the equipment was retained by the U.S. government.

Before any equipment was transferred, the nation had to agree that it would use the equipment only for training for its defense and that it would secure the equipment and allow the United States to observe it. An annual inspection by U.S. EUM personnel was not required, so much of the MAP equipment was moved for other uses.

There is currently a Department of Defense initiative to complete a 100 percent inventory inspection, reconcile all MAP equipment, and close out the program. In order to accomplish this, SCO personnel in each country review the "1000 Report" provided by DSCA, which lists



A landing craft mechanized is demilitarized by a contractor who cuts it into pieces and disposes of it by selling it for scrap. The demilitarization process ensures that the boat cannot be used again for military purposes.

all MAP items that require inventory and disposal. The SCOs then contact their counterparts in the country's ministry of defense (MoD) to jointly review the list and develop a plan to conduct a 100 percent inventory inspection.

Once items are located, SCO and MoD personnel determine which articles are still usable and which require disposal. For most MAP items, which are past their life cycles, the MoD submits a disposal request through the SCO to the Department of State.

Some items may not be located. For these unaccounted for items, the MoD submits a thorough explanation for the item's loss and requests relief of responsibility. This action also requires Department of State approval. The SCO personnel observe the disposal, provide a certificate of demilitarization and disposal, and submit it to the DSCA for entry in the SCIP.

The SCOs face many challenges conducting the MAP inventory reconciliation because not all records going back to 1952 are available.

Locating and accounting for MAP equipment is a team effort between the SCO and the MoD. The SCO, in cooperation with the MoD, is required to confirm the location of all MAP equipment.

Once a MAP item is identified, a picture is taken for historical record. The determination is then made about demilitarization. Certification will only be issued once all U.S. government demilitarization standards are met.

Searching for MAP equipment is always a challenge. Equipment has been found in a number of places, including on bases as static displays and behind warehouses in pieces. Once a MAP item is found, the location is noted, a picture taken, and accountability is recorded on the 1000 Report.

Transfers and Demilitarization

During the life cycle of a defense item, a nation may decide to transfer, demilitarize, or dispose of the item. Sometimes items such as munitions, weapons, or vehicles may be transferred to another nation that needs

an item to fill a shortage, particularly during combat operations.

Moving an FMS item from one nation to another is called a third-party transfer. Third-party transfers require notification and approval from the Department of State's Office of Regional Security and Arms Transfers. This office manages the sale and transfer of U.S. defense articles and services to foreign governments.

Once permission is obtained, the nations can begin the transfer. The EUM program manager manages the process to ensure inventory control throughout the transaction.

A nation may also dispose of defense articles that are old, obsolete, or damaged. After receiving permission from the Department of State, the nation disposes of equipment under the observation of at least two U.S. government employees, who take photos of the operation and include them with the certificate of demilitarization that is submitted to the Department of State for final disposition.

EUM is one of the most important functions supporting FMS. Security cooperation professionals managing EUM programs around the world use their skills to ensure that 100 percent accountability is maintained and U.S. technology is protected. FMS cannot be successful without quality EUM happening every day around the world.

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Brig. Gen. Abdul Wasea Milad, commander of the Afghan National Army's 203rd Corps and Maj. Gen. Asadullah Shirzad, commander of 303rd Afghan National Police Zone, observe operations to secure routes through the Spin Ghar "White Mountain" range on May 21, 2017, in southeastern Afghanistan. (Photo courtesy of the 303rd Afghan National Police Zone Public Affairs Office)

A Sustainment Quick Reaction Force to Support Train, Advise, and Assist Operations

The 518th Sustainment Brigade created an organization to fill gaps in operational contract support and sustainment to support train, advise, and assist efforts in Afghanistan.

■ By Maj. William D. Boehm and Capt. Tyrone D. Sanders Jr.

Successfully assessing, planning, preparing, and executing sustainment operations improves a commander's freedom of action, operational reach, and endurance. In a high-tempo operational environment, conducting sustainment operations responsively is pivotal to mission success.

The 518th Sustainment Brigade successfully provided responsive sustainment operations during its 2016 deployment to Afghanistan in support

of Operation Resolute Support. The unit from Knightdale, North Carolina, was the first Army Reserve sustainment brigade to serve in this capacity. During its deployment, the brigade was tasked to establish Advisory Platform (AP) Lightning for Train, Advise and Assist Command-East.

The 518th Sustainment Brigade operated in a manning-constricted environment with only one combat sustainment support battalion head-

quarters. The headquarters was made up mostly of ad hoc organizations focused on redeployment, retrograde, and materiel reduction. To overcome this challenge, the brigade improvised by creating a non-doctrinal sustainment delivery platform called the sustainment quick reaction force (SQRF).

What Was the SQRF?

The SQRF was a brigade-centric, modular force of 17 sustainment

subject matter experts. According to the 518th's senior planner, the SQRF was designed to be a flexible capability within the brigade to provide expeditionary sustainment for emerging requirements.

In the summer of 2016, the SQRF was activated to provide additional train, advise, and assist support. SQRF members were dual-hatted, serving as contracting officer representatives for local and Logistics Civil Augmentation Program (LOGCAP) contracts.

Supporting AP Lightning

The SQRF was mobilized and deployed to AP Lightning to sustain and support train, advise, and assist efforts for the Afghan National Army's 203rd Corps and the 303rd Afghan National Police Zone. Once activated, the SQRF sustained these battalion task force-sized elements until their operational contract support capabilities were in place.

While the SQRF served as a simple, efficient, and modular mechanism to deploy quickly and provide sustainment, key enablers such as LOGCAP, the Expeditionary Contracting Command, and the regional contracting command established initial local contracts and then long-term solutions to sustain the warfighters.

Once contracted support reached its full operational capability, most of the SQRF personnel returned to the brigade headquarters to perform their primary duties. A small forward logistics element remained to perform contracting officer representative duties, movement control, and liaison activities.

Contract support was key to success in this manning-restricted environment. However, the sustainment brigade's mechanism for expeditionary sustainment was also critical for success in this theater of operation.

Lessons Learned

The 518th Sustainment Brigade's establishment of AP Lightning served as a proof of principle for the SQRF concept. It provided valuable lessons in operating in an air-centric,

contract-enabled, and manning-restricted environment.

Contract-enabled support can react quickly when a team approach is coupled with a rapid funding approval process; however, many contracting lines of effort should be pursued until proper assessments of requirements, organic capabilities, costs, and timelines for mission accomplishment are completed.

This was the case when AP Lightning was established. LOGCAP contractors had significant experience operating at AP Lightning before the platform went dormant in 2014. LOGCAP was prepared to have contractors on the ground three days after it received the notice to proceed. However, the ultimate decision to activate LOGCAP was postponed until U.S. Forces Afghanistan's deputy commanding general for support could obtain a complete and accurate operational needs assessment.

In the interim, the commander of the 518th Sustainment Brigade ordered the movement of critical supplies, authorized LOGCAP site surveys, and initiated internal LOGCAP contract preparations. These actions proved to be important because local contract solutions did not have the capacity to establish AP Lightning fast enough to satisfy the brigade commander.

U.S. forces were not able to provide the properly trained contracting officer representatives required to manage local contractors. Fortunately, the SQRF was able to provide responsive expeditionary support until LOGCAP capabilities were fully deployed.

Taken in isolation, establishing the SQRF was an unanticipated victory. However, the SQRF's conceptual framework was forecast in advance. Early in the deployment, the sustainment brigade conducted a two-week future sustainment workshop to analyze Afghanistan's sustainment posture for 2017 and beyond.

A key consideration included the Resolute Support commander's need to rapidly establish train, advise, and assist platforms to support Afghan national army corps headquarters, di-

visions, and police zones. The outcome of the workshop resulted in structural changes that included having multiple SQRF teams within the sustainment brigade headquarters.

Another valuable lesson was in managing expectations. Sustainment leaders must be involved in the operational planning process early on in order to educate maneuver commanders on realistic timelines for emplacing logistics infrastructure.

Ultimately, the sustainment brigade established a sustainment infrastructure for 500 personnel at an expeditionary location by putting the proper personnel, equipment, and contracts in place in a timely manner. Meeting realistic timelines was made possible by the U.S. Forces Afghanistan deputy commanding general for support, who granted the 518th Sustainment Brigade commander the freedom to conduct logistics reconnaissance, pre-position commodities, and prepare personnel for deployment prior to execution.

The biggest challenge was synchronizing staff actions to provide expeditionary logistics support and to coordinate, secure, and emplace a long-term solution through contract funding. The SQRF proved to be a viable stopgap to bridge these two challenges and should be considered for similar environments.

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Soldiers with the 1st Battalion, 66th Armored Regiment, 3rd Armored Brigade Combat Team, 4th Infantry Division, conduct a sustainment rehearsal in preparation for Decisive Action Rotation 15-02 at Fort Irwin, Calif., on Nov. 8, 2014. (Photo by Spc. Ashley Marble)

Logistics, Maneuver Commanders, and the Customer Experience

Focusing on the customer experience helped a forward support company to provide responsive support to maneuver units.

■ By Chase Wilson

What can the Army logistics community learn about customer satisfaction from the private sector? Logistics has to be more than just the right product at the right place at the right time. If forward support companies (FSCs) want to excel and take support to the next level, they must be truly customer-focused.

In a combined arms battalion, FSCs can achieve optimal results by focusing on the maneuver company commander as the customer. Service can be elevated and relationships and trust can be improved by filtering everything the FSC does through the context of the maneuver company commander's experience. This will lead to a

more adaptable, aligned, and lethal fighting unit.

The 64th Brigade Support Battalion's H Company, an FSC supporting the 1st Battalion, 66th Armored Regiment (1-66th AR), 3rd Armored Brigade Combat Team, 4th Infantry Division, focused on customer service while delivering supplies to supported units. The FSC

delivered supply classes I (subsistence), III (petroleum, oils, and lubricants), and V (ammunition) to forward fighting units during field training exercises, during a rotation at the National Training Center at Fort Irwin, California, and while deployed to Kuwait in support of Operation Spartan Shield.

Class III

Distribution platoon leaders noticed early in 1-66th AR's training cycle that each supported maneuver company had different requests and requirements. Rath-

er than push back these requests and force companies into a specific mold, the FSC looked for ways to accommodate the commanders and their companies. This attitude, combined with a commitment to responsiveness, led to more trusting relationships between the FSC and the maneuver companies.

Class V

er than push back these requests and force companies into a specific mold, the FSC looked for ways to accommodate the commanders and their companies. This attitude, combined with a commitment to responsiveness, led to more trusting relationships between the FSC and the maneuver companies.

Soldiers and commanders have come to expect more from the civilian companies that they do business with, and the Army logistics community would be wise to adopt this same customer-focused mindset.

er than push back these requests and force companies into a specific mold, the FSC looked for ways to accommodate the commanders and their companies. This attitude, combined with a commitment to responsiveness, led to more trusting relationships between the FSC and the maneuver companies.

For example, the two infantry companies in the battalion had very different refueling requirements than the two armor companies. Depending on their mission requirements and their tactical positioning, the infantry companies preferred a service station method while the armor companies preferred to use a tailgate method.

The tailgate method allowed fuel trucks to move to tanks near the defensive perimeter. This proved beneficial for the armor companies because tanks, once set in place, are less maneuverable than infantry fighting vehicles.

What was important was re-

maintaining flexible and remembering that the mission was to enable and reinforce the effectiveness of the maneuver commander and his team. Did this flexibility require extra effort for some of the petroleum supply Soldiers? Absolutely, but it also enhanced the commander's experience when interacting with logistics support elements.

to demonstrate the FSC's commitment to the customer experience. There were two methods for off-loading and distributing ammunition to the maneuver companies, depending on the size of the ammunition being delivered, the location, and the time allotted.

Armor companies preferred to drive their tanks up to the supply trailer and unload the high-explosive anti-tank warheads and armor-piercing, fin-stabilized, discarding sabot rounds directly from the trailer into their fighting platforms. The infantry companies preferred that a supply trailer be dropped off in their tactical assembly area so that they could distribute their own rounds to their vehicles. Sometimes a combination of both methods was used.

Explicit instructions were always attached for how dunnage should be prepared for turn-in to the FSC. This streamlined the turn-in process and helped to ensure

accountability of all ammunition that was distributed.

Class I

Similar flexibility was used for the distribution of rations. Oftentimes extra food was prepared by the culinary staff in an effort to better support fighting forces that were not co-located. For example, mermite containers were sent out in the evenings to the combat trains command post, the tactical operations center, the tactical command post, and to the scouts, mortarmen, and medics.

This flexed the capabilities for distribution, but it also had far-reaching effects by demonstrating to the battalion the lengths the FSC was willing to go to provide support. In return, the supported units worked hard to stick to the FSC's timelines so that it could provide effective sustainment across the battalion.

The private sector has raised the stakes and set the bar higher than ever before when it comes to customer experience. Soldiers and commanders have come to expect more from the civilian companies that they do business with, and the Army logistics community would be wise to adopt this same customer-focused mindset.

By being flexible and focused on the experience of customers (the company commanders), sustainers can improve service, strengthen relationships, and better support maneuver units. At the end of the day, the FSC's job is to unequivocally support the warfighter.

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Sgt. Jon Findley (right) explains to Pfc. Arturo Gonzalez how to brief the enemy situation using the Command Post of the Future during the 311th Sustainment Command (Expeditionary) Command Post Exercise-Functional at Camp Parks, Calif., on Sept. 19, 2015. (Photo by Maj. Gregg Moore)

Increasing Proficiency With the Command Post Exercise-Functional

■ By Capt. Steven J. Sickles

A command post exercise-functional (CPX-F) is a total force sustainment, home-station, support operations-centric, functionally focused training exercise. It is designed to provide echelon-above-brigade sustainment organizations, commanders, and staffs with a venue to increase their units' proficiency and prepare them for an external evaluation (EXEVAL), such as a warfighter exercise (WFX).

These echelon-above-brigade sustainment organizations include expeditionary sustainment commands (ESCs), sustainment brigades, expeditionary transportation brigades, and combat sustainment support battalions (CSSBs). Theater sustainment commands also benefit by providing personnel to serve as a higher command when an ESC is conducting a CPX-F.

The CPX-F Training Strategy

CPX-F training support packages

(TSPs) are constructed as progressive training events in a unit's training strategy. The strategy addresses the unit's mission-essential task list (METL) core competencies and prepares the unit for its EXEVAL by stressing its ability to synchronize materiel management, sustain distribution, and execute sustainment warfighting function requirements at the tactical, operational, and strategic levels.

The Department of the Army headquarters, the Forces Command, and the Training and Doctrine Command participated in an Armywide effort in May 2011 called the Army Training Summit II. The purpose of the event was to refine and codify a total Army comprehensive multiechelon training strategy for functional and multifunctional units.

The Army Training Summit II identified a need for a technical and functional CPX as a ramp-up event before the unit's EXEVAL. The function-

al and multifunctional brigades and commands should conduct a CPX-F specifically focused on exercising their functional systems and processes prior to a mission command-focused WFX, the primary culminating training event.

A CPX-F's Purpose

A CPX-F provides the sustainment commander with an opportunity to assess the staff's ability to accomplish METL collective tasks with associated strategic enablers.

A CPX-F sets conditions for a sustainment unit to meet published priorities or focus areas that are part of current Army Force Generation templates, event menu matrices, and future Sustainable Readiness Model templates. A CPX-F is an essential progressive training event for achieving staff proficiencies and properly prepares units for EXEVAL and subsequent deployments.

CASCOM's CPX-F Improvements

To keep TSPs relevant, the Combined Arms Support Command (CASCOM) recognized that it must update TSPs each year based on doctrinal and Army force structure changes. These revisions in turn update the synchronized TSP databases such as the Joint Deployment Logistics Model (JDLM) database, the Joint Master Scenario Event List database, and the transportation/distribution database.

In 2014, CASCOM developed and published Phase III (Dominate) CPX-F TSPs for sustainment brigades and ESCs. In July 2015, two new TSPs were published: one for sustainment brigade reception, staging, and onward movement and one for a CSSB decisive action training environment phase III.

CASCOM recently published an expeditionary transportation brigade theater opening TSP in conjunction with the 3rd and 7th Transportation Brigades (Expeditionary). On the horizon, CASCOM is developing new movement control TSPs and is considering an ESC theater opening CPX-FTSP for development in 2018.

JDLM Fills the BCS3 Gap

Since the Army stopped using the Battle Command Sustainment Support System (BCS3) last year, many have wondered how to recapture the ability to track and report commodities. JDLM is the sustainment simulation capability that can meet exercise requirements in constructive environments. It is a scalable and tailorable simulation model that mimics sustainment information systems.

JDLM provided sustainment information to BCS3, and BCS3 then replicated the sustainment information systems in a visual logistics status report format for units to use. The information is still available within JDLM and is accessible to the users of a CPX-F or WFX through JDLM's ability to export information in Microsoft Excel for all commodities and personnel.

How a CPX-F Affects Readiness

As part of the crawl/walk phase,

a CPX-F allows for staff training through a five-day simulation event focusing on sustainment warfighting function requirements for the support operations staff. Because there is no opposing force presence, it allows leaders to concentrate on sustainment-centric core METL collective tasks, including the following:

- Leveraging logistics information systems.
- Conducting the military decision-making process.
- Producing concepts of support.
- Producing a logistics status report.
- Producing a logistics synchronization matrix.
- Producing a logistics common operational picture.
- Coordinating logistics support.
- Coordinating distribution.
- Performing essential personnel services.

After a CPX-F, the unit is prepared to plan, execute, and leverage boards, bureaus, centers, cells, and working group events related to sustainment operations in a controlled, simulated, constructive environment. A CPX-F allows unit leaders to know that many of their battle rhythm event processes are already trained, refined, and streamlined so they can direct their focus on planning to support a corps or division prior to a WFX or combat training center rotation.

Best Practices for a CPX-F

Collected observations, insights, and lessons learned from several exercises revealed a few suggestions for executing a successful CPX-F.

Begin planning early. The G-3 or S-3 can pull TSP products as early as desired and begin the military decisionmaking process. Use the CPX-F access link located in the Sustainment Unit One Stop (SUOS) to download the recommended life cycle planning guide.

Train the master scenario event list (MSEL) manager to use the Joint Training Information Management System and to manage MSEL injects.

Commanders, pending assessments, can use the MSEL injects to increase or decrease the stress level on the staff as long as the MSEL manager knows how to manage the inject flow.

Leverage the training audience's training readiness authority. Identifying and providing a solid group of support personnel for the higher, adjacent, lower, supported, and supporting units is crucial to the success of the exercise. However, the exercise support manning document requirements are much smaller and, therefore, more forgiving than documents for the larger WFXs and other simulation exercises, such as Talisman Saber.

Know that this is your exercise. Take ownership of the exercise from start to finish, and do not be driven by outside influences.

All TSPs are available online in the CASCOM SUOS portal at http://www.cascom.army.mil/g_staff/g3/SUOS/index.htm. The SUOS is a well-organized sustainment repository of useful resources. Key leaders responsible for sustainment operations are encouraged to review the portal.

Should your organization elect to conduct a CPX-F within the context of CASCOM's advise and assist concept, the CASCOM Collective Training Development Division's CPX-F Branch personnel are here to assist throughout the process. Such assistance includes contributing to conference planning, participating in technical working groups, and providing input toward exercise execution. The branch's contact information can be obtained through the SUOS portal.

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Soldiers from the 583rd Forward Support Company, 188th Brigade Support Battalion, transfer rocket pods to a heavy expanded-mobility tactical truck on April 13, 2016, during the 18th Field Artillery Brigade's culminating training exercise at Fort Bragg, N.C.

Training Lessons Learned by a Field Artillery Forward Support Company

The lessons learned by one unit supporting a field artillery battalion during a culminating training exercise could improve training and operations for other forward support companies.

■ By Capt. Andrea Asendio

I served as the company commander of the 583rd Forward Support Company (FSC), 188th Brigade Support Battalion (BSB), while it supported a high-mobility artillery rocket system (HIMARS) battalion. During that time, the FSC participated in a culminating training exercise (CTE) for the 18th Field Artillery

Brigade at Fort Bragg, North Carolina. The training scenario, designed by the brigade, used realistic enemy trends pertaining to its upcoming deployment to assess the HIMARS battalion's operating procedures and the logistics support provided by the FSC.

The CTE allowed the 18th Field Artillery Brigade and its

subordinate battalions to train on mission-critical tasks in order to increase their mission readiness.

The CTE also provided the participants with an opportunity to solve tough, realistic problems that it could face during deployment. The battalion staff, batteries, and FSC were challenged to refine systems and products. Doing so im-

proved communication and mission command throughout the brigade and ultimately resulted in a more effective decision-making process.

During the CTE, the FSC exercised all of the skills it learned through mission-essential task list training performed during section-level sergeant's time training and battalion- and company-level field training exercises. FSC commanders should consider the following lessons learned to prepare for any training event.

Create a Shared Understanding

Army Doctrine Reference Publication 4-0, Sustainment, says that understanding is fundamental to mission command. Sustainment

commanders must understand the supported commander's intent and concept of operations. I facilitated this by ensuring the distribution platoon trained with battery support platoons and the maintenance support teams trained with their supported batteries.

Typically, the FSC brings bullets, but in a HIMARS battalion it brings rocket pods. It takes a distribution platoon up to an hour to upload and download pods.

At every opportunity, I ensured the distribution platoon trained with the battery support platoons. This training included linking up, conducting rocket pod transfers, performing security, creating and employing rearm, refuel, and re-

supply sketches, and validating standard operating procedures. The FSC's understanding of the concept of operations led to the HIMARS battalion's success on the battlefield.

In order to facilitate a shared understanding, I assisted the battalion S-4 with the battalion logistics planning. The battalion S-4 and the FSC commander must capture requirements on a designated information system such as the Command Post of the Future or Joint Capabilities Release (JCR) and describe the context for future requirements to the BSB support operations officer and the brigade S-4. This ensures resupply missions and requirements are clearly



Soldiers from the 583rd Forward Support Company, 188th Brigade Support Battalion, transfer rocket pods on a heavy expanded-mobility tactical truck on April 13, 2016, during the 18th Field Artillery Brigade's culminating training exercise at Fort Bragg, N.C.

understood and articulated in the synchronization matrix.

Use a Synchronization Matrix

A logistics synchronization matrix was used for all three phases of the exercise. It was very detailed and depicted who was to get which class of supply at what time and where. The matrix was written after each operation order briefing and showed the unit's mission, end state, and timing of critical events. I developed the matrix with the battalion S-4 using input from the battalion S-3.

Using a logistics synchronization matrix resulted in more efficient operations. The workload was properly distributed, and the delivery of supplies and personnel was synchronized with battlefield operations.

Know Repair Parts Demand

The FSC should ensure a thorough demand analysis is conducted for class IX (repair parts) bench and shop stock. The maintenance technician and maintenance control officer of the 583rd FSC queried historical data from past field training exercises to determine which parts to keep on hand.

During a 21-day exercise, the brigade support battalion's operational readiness rate was an impressive 97.6 percent. Our maintenance missions included changing out five damaged tires on the mission-critical HIMARS. The maintenance section was proactive and diligent in ensuring it had the parts necessary to keep the HIMARS in the fight.

Train on Mission Command

When I first took command, my command post had no mission command systems or any other means of tracking logistics, not even a radio. During each field training exercise, I kept adding a communications element to my command post.

By the time our CTE commenced,

the FSC headquarters set up the command post with a JCR, a radio, and logistics tracking systems such as maps, butcher boards, and a logistics synchronization matrix. We also ensured everyone, from the driver to the platoon leader, knew

The 583rd FSC held a weekly training meeting. When a training event had taken place during the previous week, leaders always conducted an AAR following the training meeting. The AAR was driven by what tasks the command-

Using a logistics synchronization matrix resulted in more efficient operations. The workload was properly distributed, and the delivery of supplies and personnel was synchronized with battlefield operations.

how to operate the radio, send messages through JCR, and had basic map-reading skills. The FSC also ordered everything needed for the command post ahead of time to ensure it was on hand before the CTE.

During the CTE, the FSC set up the command post with a JCR tactical operations center kit, a radio, maps, and tracking boards to ensure it reported to its supported battalion S-4 accurately and quickly.

Secure Your Unit

During the CTE, the FSC ordered ring mount kits and installed its own M240B machine-gun ring mounts. It used its light medium tactical vehicles and humvees for security. These vehicles were maintained to the -10/20 maintenance standard and were available to deploy at a moment's notice.

External security elements are not always available. FSCs need to be able to conduct missions with the equipment that they have.

Conduct After Action Reviews

Evaluate the training and retrain are the last two steps of the Army's 8-Step Training Model. FSCs should conduct after action reviews (AARs) with the supported battalion following every training event.

er assessed the company on and included by phase what worked and what did not. All company senior leaders were required to provide input, which was kept in a book that was updated after each exercise.

The CTE allowed me to exercise mission command during decisive action training. It was invaluable in showing the FSC's strengths and weakness. The company's success during the event was a direct result of the mission-essential task list training performed during sergeant's time, field training exercises, and other events leading up to the CTE. Having the support platoon as an enabler for these events helped the FSC and its leaders to train as they fight.

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LCOP: A Shared Understanding in an Expeditionary Environment

Maintaining a logistics common operational picture is critical to sustaining a brigade combat team in a decisive action or expeditionary environment.

■ By Capt. Adam Crawford and Capt. Anthony Finch

In recent years, brigade combat teams (BCTs) have primarily conducted advise and assist operations in Iraq and Afghanistan. This type of operational environment has led to a drastic change of pace in the training provided at the Army's combat training centers (CTCs).

Prior to the wars in Iraq and Afghanistan, a CTC rotation was likely to feature a decisive action training environment (DATE). Such an environment consisted of expeditionary combat operations, which began with joint forcible entry followed by echelons of units entering the combat zone in need of service and support from logistics units.

The advise and assist mission has its own set of logistics problems, and its intensity is different from an expeditionary mission's intensity. A transition back to DATE from an advise and assist focus requires units to essentially get back to their roots, dust off the doctrine of the 1980s and 1990s, and marry that doctrine with unified land operations.

Soldiers must understand the core functions and design of a decisive action mission and how units should fight. For the logistics community, this means establishing forward arming and refueling points, logistics resupply points, and forward logistics elements to supplement the capabilities of the forward support companies. The difficulty lies in the lack of training provided for such operations, which was caused by the Army's primary focus being advising and assisting other militaries.

This article discusses how developing and maintaining a logistics common operational picture (LCOP) among command teams within the brigade is critical for enabling a brigade support battalion (BSB) to sustain a BCT in a decisive action or expeditionary environment. The discussion includes the use of analog and digital tracking systems, the use and execution of a proper primary, alternate, contingency, emergency (PACE) communication plan, and the lessons learned from the first decisive action training rotation for the 2nd BCT, 101st Airborne Division (Air Assault), in more than a decade.

Understanding Unit Capabilities

Predeployment operations in preparation for the 2nd BCT's Joint Readiness Training Center (JRTC) rotation included gaining a firm grasp on the capabilities of each forward support company and other BSB companies. Knowing what equipment each unit needs for the operation is critical in order to develop an LCOP.

The LCOP is derived from the common operational picture. Joint Publication 3-0, Joint Operations, defines a COP as "a single identical display of relevant information shared by more than one command that facilitates collaborative planning and assists all echelons to achieve situational awareness."

In a November–December 2008 *Army Logistician* article, Chief Warrant Officer Timothy N. McCarter Sr. likewise defined the LCOP as "a single and identical accounting of the

logistics capabilities, requirements, and shortfalls in an area of operations shared between the supporting and supported elements. The LCOP allows the supporting elements to determine unit capabilities, forecast logistics requirements, synchronize logistics movements, and publish information that improves situational awareness at multiple echelons of support."

In order for an LCOP to be developed, units must submit timely and accurate logistics status (LOGSTAT) updates. Without this critical information, the support operations officer (SPO) has no way to develop a plan to provide the resources and services that units will need in a combat environment. Although the responsibility of providing these statuses lies solely on the maneuver battalions, it is the responsibility of the BSB and, more directly, the SPO to provide the means to report such information.

Communicating LOGSTATs

During its JRTC rotation, the 2nd BCT used Joint Capabilities Release (JCR), which was the primary means of communication within the brigade's PACE plan. Because Soldiers lacked training and understanding of the Battle Command Sustainment Support System, the unit instead used JCR for LOGSTATs.

However, LOGSTATs were often not provided in a timely manner. If they were, it was difficult to determine the accuracy of the status because of inconsistent degrees of measure.

For example, when asked for the status of their bulk fuel supply, some units would provide the number of gallons on hand in their fuel tankers. Others provided that information as well as an estimate of how many gallons were on hand in individual vehicles. This made it incredibly difficult to determine what the unit needed for resupply.

Unit logistics capabilities drive how an operation is planned, rehearsed, and executed. A maneuver unit cannot operate without fuel, sustenance, ammunition, and maintenance assets. Ensuring an operation is successful requires the understanding of what resources are available balanced against what resources will be needed.

This balance is impossible to achieve without an established LCOP. Achieving an LCOP is impossible without the accurate reporting of commodities from units through LOGSTATs.

Battle Tracking

After a working PACE plan is established, units submit all reports based on the communications available. In the case of the 2nd BCT, the PACE plan consisted of JCR, radio, tactical satellites, and secure voice over internet protocol phones.

Primary battle tracking in the initial phases of joint forcible entry was conducted through JCR, hard copy maps, and whiteboards. This allowed the SPO and other BSB entities to take information immediately from the JCR and plot it on the battlefield map.

Having such information readily available and updated throughout the mission allows commanders to make complex decisions about resupply operations and commodity consumption. Tracking this information also gives the officers and noncommissioned officers who track these commodities historical data that enables improved forecasting and planning processes.

Executing rehearsals and drills is necessary for personnel to become

trained and proficient at operating communication systems. A rehearsal provides a venue for key players to learn who the decision-makers are for each type of information, who needs to know what kind of information in order to accommodate requests from units, and where to go if further questions need answering.

The 526th BSB, 2nd BCT, conducted a thorough sustainment rehearsal and consistent two-minute drills prior to and throughout the JRTC rotation. The sustainment rehearsal allowed all battalion and

formation and maintains knowledge management.

Within a BCT, it is the logisticians' responsibility to ensure the maneuver commanders have all of the logistics information they need to make informed decisions. However, it is also critically important that the maneuver units understand what information the logistics elements need in order to provide them with unwavering support.

Considering lessons learned from DATE rotations at CTCs, the major takeaway is that logisticians and

Achieving an LCOP is impossible without the accurate reporting of commodities from units through LOGSTATs.

company command teams to come together in a learning environment that allowed each command team to see where its unit fit into the puzzle. The teams learned how logistics would come into play in the operation, where they needed to focus their planning for resupplying their units, and who would make decisions about providing supplies.

The two-minute drills conducted inside the tactical operations center and SPO shop provided different scenarios for the officers and noncommissioned officers to react to. The drills allowed them to find hiccups in the system that could be improved before an emergency situation arose.

These drills and rehearsals are critical to ensuring that transitioning between analog and digital tracking, or simultaneously using both, is seamless. Conducting such rehearsals also helps units to understand where they need redundancy in their systems. They learn what information needs to be backed up and how that information plays into making critical decisions in the midst of a combat operation. Creating redundancy in the system protects the in-

warfighters need to have the same understanding of what logistics support is critical. Just as logisticians may not understand when and where a cavalry squadron should emplace a screen, maneuver commanders do not need to know the ins and outs of logistics tracking systems; they just need to know how to submit accurate LOGSTATs.

Everyone needs to thoroughly understand both the concept of support and the scheme of maneuver. Without this knowledge, support will fall short and leave the maneuver elements unable to complete their missions.

Capt. Adam Crawford is the battalion S-4 of Headquarters and Headquarters Battalion, U.S. Army North. He has a master's degree in supply chain management from the Florida Institute of Technology.

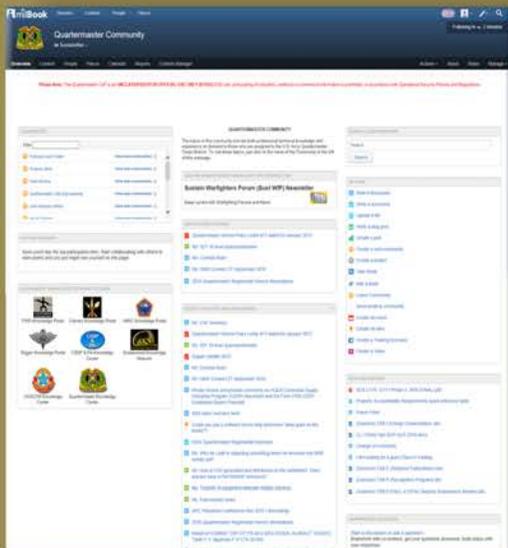
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Brig. Gen. Rodney Fogg, The Quartermaster General and commandant of the U.S. Army Quartermaster School mixes batter while Brig. Gen. Jeffrey Drushal, commandant of the US Army Transportation School (Official), watches during the Commandant's Cookoff. (Photo by Stefanie Antosh)



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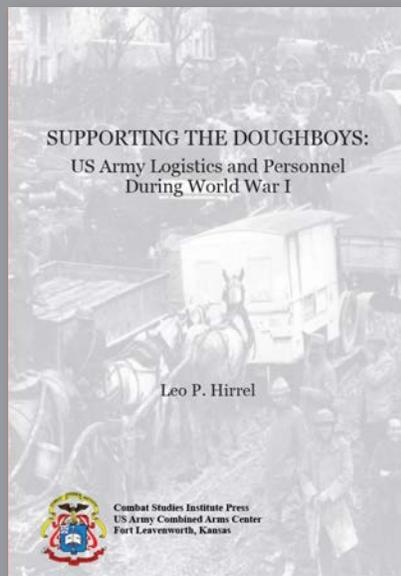
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